



*UNIVERSITY OF BRISTOL STUDIES No. 3*

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STUDIES IN  
PHILOSOPHY



# STUDIES IN PHILOSOPHY

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*Published for the*  
**UNIVERSITY OF BRISTOL**  
*by*  
**J. W. ARROWSMITH LTD.**  
*Small Street, Bristol*

FIRST PUBLISHED IN 1935

PRINTED AND MADE IN GREAT BRITAIN

## PREFACE

THIS volume contains almost all the articles on philosophical subjects which I have written during the last fifteen years. I have omitted papers contributed to joint discussions, except in one case in which my paper came first and could, therefore, be understood without reference to the others. The only other important omission is that of a pamphlet published in 1920 under the title, *What is Philosophy?* I have omitted this because my views on this question are more adequately stated in the paper on *The Examination of Assumptions*, which was delivered as the Presidential Address to the Aristotelian Society in 1934. I have placed this first though it is chronologically the latest, partly because it took the place of the earliest, and partly because a general statement of what I conceived to be the task of the philosopher seemed a suitable introduction to the discussion of particular philosophical problems. Otherwise the papers are arranged in order of publication.

The papers are now printed as they originally appeared, except for the correction of a few obvious misprints and verbal errors, and the omission of a sentence here and there which had special reference to the situation at the time of their first appearance. I have added a few notes and comments where it seemed appropriate and possible to do so in a brief space.

When these take the form of footnotes they are distinguished by square brackets.

All the papers have been previously published, and some were delivered, before publication, as lectures or papers to a society. Numbers One, Five and Ten appeared in the *Aristotelian Society's Proceedings*, and Number Seven in the *Proceedings of the International Congress of Philosophy* held at Oxford. Numbers Two, Three, Four and Nine appeared in *Mind*. Numbers Six, Eight, Eleven and Twelve appeared in *Philosophy* (formerly the *Journal of Philosophical Studies*), the last article being one of a series by various authors on "Great Thinkers." I am indebted to the Editors of these periodicals for permission to republish.

I have, finally, to record a special debt of gratitude to the University of Bristol, whose generous support has made the publication of this volume possible.

G. C. FIELD.

Bristol,

July, 1935.

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## THE EXAMINATION OF ASSUMPTIONS

IT is a healthy tendency among philosophers to pause from time to time from their particular problems and ask each other what they are doing. The present time seems to be one of those moments in which the old question what Philosophy is is being asked again, and some of the old answers, including the old and familiar one that it is mostly nonsense, are being given, though perhaps in a somewhat new dress. The Presidential address with which the Session of this Society opens seems a suitable occasion for considering the question once more. I am not going to pretend to offer a new answer. So far as I have an answer at all it is an old and familiar one, but it is perhaps worth restating in order to examine how it connects up with some of the recent contributions, direct or indirect, to the discussion.

I should like at the outset to disavow all intention of attempting to draw a sharp boundary line, everything within which is Philosophy and everything outside something else. I have not much sympathy at any time with the tendency to stick up boards with "Trespassers will be prosecuted" on them all over the intellectual field, and for the philosopher above all people I think it would be a fatal mistake. I understand the desire of philosophers to mark off a territory all their own, within which they can speak with absolute authority and admit no rival claim. But the attempts to do this seem to me to run the risk of making that territory smaller and smaller, until nothing is left which can seriously occupy the attention of a serious person. At our recent meeting at Cardiff I overheard a discussion in a group of some of

*the younger philosophers, and in the course of it one of them was stopped in the middle of an argument by another with the words, "Now you are not talking as a philosopher, but as an amateur sociologist."* But it seems to me that if the philosopher is to contribute anything at all to political thinking, he may well find it necessary to make himself something more than an amateur in Sociology, whatever that word may mean. At any rate, I should hold myself free as a philosopher to carry on with any line of thought on which I had started, without feeling obliged to check myself the moment that it seemed necessary to look for light to other quarters.

The formula which I would choose as the best expression of the nature of philosophical thinking is that indicated in the title. "Philosophy is the examination of assumptions" is an old and familiar phrase. A variant of it which we have also heard is "Philosophy is a resolute attempt to become aware of and to doubt all pre-conceptions." I prefer the former, if only for the reason that it says less. Too much precision in a preliminary definition seems to me a positive disadvantage, for it should only attempt to indicate directions, and not to give us a sketch plan of the route. In any case to give a single formula is only the beginning of the task. We must go on to further description and illustration of what we mean by assumptions and how we suppose they are to be examined.

The opening stages of the exposition are probably familiar to us all. At any rate, they have been set forth in more than one philosophical work. We may recall here, in our own way, the salient points of the argument. It is obvious that in any investigation or argument or train of thought a good deal is always assumed, or taken for granted, without being discussed or even explicitly brought before the mind at all. But there are certain differences noticeable between the kinds of assumption

*that are made. We may take for granted, or assume the results of previous similar investigations, as, for instance, when the scientist accepts without further examination the results of previous experiments by other scientists. The examination of these is obviously not work for the philosopher. On the other hand, we may discover certain much more general assumptions taken for granted in a whole series of investigations of a particular sort, assumptions, for instance, about what we have to accept as given facts, about the nature and possibility of proof, about the ideals of explanation to be adopted, and so on. The examination of such assumptions as these is philosophical thinking, or at any rate the beginnings of it.*

There is an obvious difference between the two sorts of assumption in these extreme cases. But I am not going to insist that it is an absolute distinction in the sense that we can draw a sharp dividing line between the kind of assumption which the philosopher examines and the kind which is not his business. There may very well be certain border-line cases whose position is very doubtful. But that would only mean that at some point philosophical thinking passes by imperceptible stages into some other kind of thinking and perhaps, also, that in certain fields the two have to work together in an indissoluble partnership. This is a conclusion to which I could find no objection, and in any case it would cast no doubt on the difference between the extreme cases.

Of course, these assumptions are not questioned while they are being acted upon. That is only common sense.<sup>1</sup> We may, of course, have examined them before we acted upon them. And so far as anyone after careful examination deliberately accepts a general

<sup>1</sup> It is perhaps necessary to explain to certain people—some particularly sensitive scientists, for instance—that it is not necessarily a criticism of anyone to say that they are acting on certain assumptions without examining them.

assumption or set of assumptions, so far I should say that that person has been thinking philosophically, and has adopted a philosophical theory. Again, such assumptions may be consciously accepted without more than a perfunctory examination, as, for instance, when they are taken over without much thought from someone else. But there may also be cases in which the assumptions are never explicitly formulated, or even consciously brought before the mind at all, and yet are acted upon. In fact, people often think or argue in a way which would only be valid if certain general assumptions were accepted, even though it had never occurred to them even to formulate these assumptions to themselves, much less to ask themselves whether they were valid. Indeed, they might even deny, when they were faced with the formulation of them, that they accepted them at all, and yet they would still be assuming them in their argument.

I will attempt an illustration of this from the procedure of some scientists: I dare not say "of science" because there are some scientists who assure us that they never make any assumptions at all. Suppose that a scientist tells us that his object is to discover the real nature of the material world, or to explain the way in which it works, or some similar phrase. It will hardly be denied that some scientists at some times have talked in this way. We may then find that the results he arrives at or accepts are all expressed in mathematical terms. Further, if we watch him at work we may find that he is never satisfied that he has got a result till he can express it in mathematical terms. We should, then, be justified in saying that he was assuming that whatever was expressible mathematically in the material world was in some special way its real nature, or that explanation was expression in mathematical terms, or something very similar to that.

This particular assumption has played an important part in the history of scientific thought, and has in the

past been explicitly adopted by great scientists as a fundamental philosophical doctrine. But it has also, it seems, been acted upon by many scientists who did not express it in definite terms, and who perhaps gave a different account of their assumptions. Thus Sir Oliver Lodge in a little popular work published a number of years ago said that the ideal of explanation adopted by the physicist was to explain the less familiar by the more familiar. This would certainly seem a very strange notion to anyone who even glanced at the results of Sir Oliver's own researches, and those who find it difficult to believe that he was actually acting upon this assumption would be confirmed in their doubt by the fact that, in order to support his account, he had to go on to the obviously false statement that mass and motion were the two things most familiar to us. It is clearly perfectly easy for a scientist or for any other investigator to act on the assumption of certain ideals of explanation without knowing what they are. He may know that he responds to one explanation when it is reached in a way that he does not to another. What the general features are which produce that response he may not find out till much later. And he may be a very efficient investigator or even a genius in his own line, without ever trying to do so at all.

There are so many instances of philosophical work which would clearly fall under this description that it is hardly necessary to quote them. We can find one of the best instances in many of Plato's dialogues, in which he attempts to bring out what is being assumed in current discussions on conduct among the Greeks of his time, about the nature of the facts indicated by the use of words such as *ἀγαθός*. To come immediately to modern writers, the monumental work of Émile Meyerson is entirely devoted to establishing certain assumptions which he claimed to have discovered in all scientific investigation. But it is unnecessary to multiply instances.

I do not see that we can, or need, attempt to prove the possibility of this kind of thinking. But we may well raise the question how far one can carry it, what kind of knowledge it gives us, by what methods it proceeds, and so on. I must confess that I am not prepared to make final or definite assertions on any of these points, particularly on the question of the proper methods. I strongly suspect that there is no single and sufficient method, no royal road to philosophical understanding. At any rate, I have not found it myself, and I am not convinced by those who claim to have done so. We can only proceed very tentatively and experimentally, neglecting no quarter from which light may come.

I must, however, say a word about an operation which must at any rate enter largely into any philosophical investigation. That is the examination of the use of words. Professor Moore, I think, has described the subject of philosophical thinking as "how people use words." I should differ from him, if at all, only in describing this as the principal, if not the only method in Philosophy, rather than as its subject matter. It is obvious that if my description of the work of the philosopher is correct he cannot confine himself literally to an examination of the use of words alone. For one thing, when he is trying to discover assumptions he often has to examine the use of words in order to discover something which is not expressed in those words at all, namely, the unspoken assumption. That is only an instance of the general principle that he has to examine the use of words in order to see beyond the words to something else. I am perfectly certain that the mere examination, or the arrangement and re-arrangement of words can never get to any philosophical result of value.

I am not at all sure that anyone has ever supposed that it could. But certainly a great deal of recently published work, in which the most extraordinary patience and ingenuity is shown in exploring all the

possibilities of substituting one set of words for another, might give the impression that something of the sort was supposed. In anything I say on this point I am open to correction, because I admit that I have not yet been able to grasp clearly what those who practise these methods expect to attain by them. It looks to me at times as if they were hoping to work out a kind of philosophical calculus, by the use of which they could arrive at clear and certain results with the minimum of effort. If this is their hope, I am confident that it is doomed to disappointment. It is no doubt true that we can often restate arguments in a way which will bring out much more clearly the assumptions that we are looking for. But I am convinced that there are serious limitations to the possibilities of this. It seems to me certain that there can be no one infallible form of statement, and that the choice is often arbitrary. At any rate, different forms of statement may each be the best for different persons in different circumstances, according to the direction from which they are approaching their examination. We could only, I think, refuse to admit this by presupposing that it ought always to be possible to find one arrangement of words which exactly corresponds to the facts which the words are intended to express. This again, if anyone does suppose it, seems to be expecting far too much of language. I will content myself here by throwing out a cryptic challenge to possibly non-existent opponents by saying that they seem to me to think that words ought to be maps, whereas I am inclined to think that they can rarely, if ever, be anything but signposts.

The point I next want to raise has perhaps some connection with this. We are probably all familiar with the account of Philosophy as the analysis of the concepts which are used in various kinds of thinking. I think that there is a sense in which this is a perfectly correct account of what the philosopher is doing, and I have even used such a phrase myself more than once.

But I now prefer the other description, for this reason. The phrase "analysis of concepts" might be taken to imply that the concept was something which could be held before the mind by itself and analysed into elements. Or again it might seem to imply that the concept was something into which judgements or propositions could be analysed and which was intelligible apart from these. Now at any rate of the concepts with which philosophy deals—I will not dogmatize about others—I am sure that this is not the case. So far from judgements being analysable into concepts I think it would be much truer to say, although I do not really like the expression, that concepts are to be analysed into judgements. Perhaps it would be better to say simply that concepts are judgements. When I use a word like "good," which is a typical object of philosophical examination, and try to find out what I mean by it, I think that I inevitably find either that it is a meaningless sound, or else that, by the use of it, I mean to imply a judgement or a series of judgements, or beliefs, or assertions that such and such is the case, for instance, that certain things in fact have certain qualities or have, or can have, certain other things truly asserted about them.

It will be seen from this why I prefer to talk of assumptions, because that word would naturally imply something which can only be put in the form of a statement or assertion. But I would go further and say that even assumptions are not intelligible by themselves in isolation. They are essentially the assumptions *of* certain operations of thought, and they could not be understood in isolation from these operations. If we seem at times to be able to understand them in isolation, it is because we have got at least some sort of an idea of the operations or a particular instance of them in our minds while we are formulating the assumption. On the other hand, I certainly do not wish to suggest that the formulation of the assumption is merely a name, or a phrase, for the sum of the

operations. I am certain that what we assume is something more than, and other than what we discover by any operation, or a whole series of operations. But it is only intelligible in relation to these operations.

Does this involve some sort of absolutist doctrine that we can only understand the assumptions if we are acquainted with the whole of the operations past, present and future, in which they are assumed? I hardly think that we need go so far. It really depends on how far one operation or selection of operations can be treated as typical of others, and it seems to me that all we can say is that they may quite well be typical, but that we cannot often or ever tell with absolute certainty that they are so. It is, therefore, always possible that further acquaintance with the operations will modify our view of what is assumed in them. That is a risk that we have to take.

Of course, be it noticed, when we are dealing with a particular argument by a particular person we can be reasonably certain when we have gone all through it that we have at least enough material to discover the assumptions that he is making. Even to do that requires great care and trouble and a special kind of ability that not everyone possesses. It is obviously much more complicated when we are trying to discover the assumptions of a whole group of arguments or operations, for instance the assumptions of all scientific research, or the assumptions of our ordinary ways of talking or thinking about conduct.

To sum up, I would claim that the assumptions of any operation or operations can generally be discovered and formulated, but the formula by itself conveys little. We only understand it when we think of it in connection with the operations or a typical instance or instances of them. I think that that is a usual experience in philosophical thinking. I came across a passage the other day in a work of fiction which seemed to me to describe it, in the elementary stage, very well. In a

description of the mental growth of the hero the author says, "It was a strange thing to him that if he remembered a philosophical remark, however absurd it seemed to be at the time of reading, later it fitted in most aptly with something he was doing or thinking." That is to say, we have to try over the operations with the statement of the assumptions in our minds, and then perhaps it may suddenly dawn upon us that in those operations we really are assuming that.

We now go on to a fresh question. Are we confined to extracting these assumptions and merely recording them as matters of fact, or can we criticize them and examine them as true, or valid, or useful, or whatever adjective we think applies to them? That very question suggests that we not only can, but must do so if we are serious in our attempt to understand them. To understand what sort of assumptions we are making forces us to ask at least in what sense we are assuming them, and this implies, among other things, at least some notion of the kind of grounds on which we could accept or reject them. And this, in turn, can only be understood if we try it in typical cases.

As assumptions are essentially the assumptions of particular operations, an obvious way of criticizing them is from the point of view of the operations. But this phrase has to be used with great care. It seems clear that no particular result of one or more of these operations can directly either confirm or deny the assumptions on which the operations proceed. For instance, if there are certain assumptions involved in the use of the experimental method at all, obviously these assumptions cannot themselves be tested by a particular experiment. It is possible, though very doubtful, that from the assumptions certain further consequences might be inferred which could be tested by one of the particular operations. In this case the assumptions might be confirmed or refuted by the operations themselves. It is also possible that the assumptions of one set of operations might be tested by

the results of some other set of operations. There are some who think that a great many of the assumptions with which Philosophy deals could be tested by comparing them, or the results that seemed to follow from them, with the conclusions of Psychology. This may be true, if we are broad-minded enough about what we include under the head of Psychology, and not too particular about the precise boundary line between what Psychology has actually achieved, and what it may possibly achieve in the future.

Be that as it may, the most usual way in which assumptions can be examined from the point of view of the operations is more indirect. We may find a series of investigations going on very well for some time, and then appearing to reach an unexplained check. On some such occasions we may find that, if we turn round and examine the assumptions on which we have been proceeding, we may discover that by the abandonment or modification of them we could get going again. I fancy that something like this occurs at rather rare intervals in the history of some of the natural sciences. Possibly something of the kind took place in the development of the Theory of Relativity, when Einstein questioned and revised some of the previous assumptions about the nature of space and time. Similarly in more recent times physicists appear to be abandoning the assumption formulated by Kelvin in his well-known phrase, "I understand a thing when I can make a mechanical model of it." In this case I should doubt whether we could describe the process as simply abandoning it. Meyerson, at any rate, would have explained what happened by saying that the mechanical model assumption was one particular form of a more general assumption still, and that this general assumption was retained, though it was seen that it was not necessary to put it in this particular form. It seems to me unquestionable that these are instances of philosophical thinking, but I need hardly say that when such a

procedure is required for the progress of a highly-developed particular science, it can only be done by scientists who happen to have a taste and ability for philosophical thinking. A philosopher, with some understanding of scientific procedure, might at the most hope to make occasional useful suggestions. A vaguer and more complicated illustration might perhaps be found in the sphere of political discussion which seemed to have reached an *impasse* by working on the assumption of Natural Rights, from which it was for a time rescued by the work of Bentham and the Utilitarians.

Perhaps more important for our argument is another way of examining assumptions : that is, in the light of their relation to other assumptions in the way of agreement or difference, compatibility or incompatibility. Assumptions which appear to contradict each other certainly provide good grounds for examination and criticism. It is not likely that we should find such within the bounds of a developed science. I should imagine that one condition of progress in any science was that it should proceed on a set of internally coherent assumptions. But in ordinary, everyday thought, for instance on questions of conduct, it is a familiar experience that two or more arguments on the same subject may be based on mutually contradictory assumptions. Not only does this happen with arguments by different people, but also with arguments by the same person at different times. Another very important case is when the assumptions adopted perhaps with success in one line of investigation contradict, or appear to contradict, assumptions adopted in another. That was what happened in the days when most, if not all, physicists adopted the assumption that all movements of material objects were mechanically determined, which seemed to many people in direct contradiction to some of the assumptions of our ordinary judgements of human conduct. I need not recall the new forms in which this problem arises in the light of recent

developments in physical theory: it seems to me the bearings of these have as yet been very incompletely explored. Similar problems constantly arise when there is question of extending the assumptions of one science outside its own boundaries. We have almost forgotten in these days the extravagant claims that were made at one time for the application of notions derived from Biology to political, social and moral problems.

Once we begin to face questions such as these we are inevitably driven to an examination of these assumptions as possible sources of knowledge: that is, to consider their relation to reality or the facts or whatever is the case. It is a question we cannot evade if we are going on with the attempt to understand what we are assuming, for that really means something different according to what we suppose its relation to the facts to be. It might be denied, for instance, that terms like true or false were really applicable to these assumptions at all, even though they were expressible in the form of assertions. It might be said, perhaps, that they were merely useful ways of looking at things. But I think that such a denial could only have meaning if, in making it, we accepted certain further assumptions. For if we deny anything we must, I suppose, in some sense understand what we are denying, and it seems to me, at any rate in connection with things of this kind, that we can only significantly deny by implicitly asserting something else. For instance, we might give significance to the statement that assumptions do not give knowledge of facts by implicitly adding "in the sense in which something else, perhaps immediate sense perception, does give knowledge of facts." But even such a belief as that could only take the form of an assumption: that is to say, it could not itself be an object of immediate sense perception. So that even denial of the truth of assumptions involves the acceptance of at least one general assumption about the facts and the relation of our mental processes to them.

It is clear that here we are beginning to tread into the danger zone of Metaphysics. But we have got there because once having started on the process of examining assumptions at all, we could find no clear stopping-place on our way. This is my quarrel with Professor Broad, whose account of Critical Philosophy in *Scientific Thought* contains so much that I should gladly subscribe to. He speaks of what he calls Speculative Philosophy as being an entirely different study from Critical Philosophy, pursued by different methods. In my view, on the other hand, it is merely Critical Philosophy carried further, and the results are arrived at by the more persistent use of precisely the same methods. People who want to avoid metaphysical speculation had better be very cautious about starting on the critical examination of assumptions at all.

Of course, the great speculative thinkers have taken these possibilities much more seriously, and dealt with them much more systematically than those who have confined themselves to the critical examination of particular operations of thought. It has been very frequently supposed that if we carry on the examination of assumptions thoroughly enough, we shall find in the end certain assumptions that we cannot help making. Even those who have not gone as far as that have held that certain assumptions are necessarily made in carrying on certain lines of thought or investigations which seem to be specially successful, as, for instance, the investigations of natural science. It has also been held that if these are necessary assumptions of processes by which we apprehend reality, they themselves must be able to give us information about reality. At any rate they tell us something of the way in which we are obliged to think about reality. But only on certain assumptions, which can be doubted, is the distinction between the two a real one. Further, if we think we have discovered any such assumptions, we naturally go on to examine their relations to each other, and that

in turn may give us further knowledge. For instance, suppose we find that in different processes of thought we are making assumptions which seem to contradict each other: it we find it equally difficult to abandon either, we may be able to discover certain further assumptions on which alone it is possible to reconcile them, as when Kant attempts to resolve his antinomies. Again, we may think that certain further consequences follow from the acceptance of certain assumptions. For instance, the idea that secondary qualities are mental and primary qualities physical was widely supposed to follow from the assumptions of scientific explanation, and is indeed still held by some scientists. All such beliefs clearly contain at any rate the elements of a metaphysical system.

This way of thinking certainly does not seem to me self-evidently absurd. On the contrary, it has to be taken very seriously. We need to give very careful consideration to the large class of beliefs which are held, not because of direct proof, but because we always find ourselves thinking, and perhaps also feeling and acting<sup>1</sup> as if they were true. I think it contains some beliefs not usually ranked as philosophical. Some of what Professor Moore calls common sense beliefs which he holds, rightly in my opinion, we know with certainty to be true, would, I think, have to be included. For instance, the belief that other conscious beings like ourselves exist is held, not because we have examined the evidence for it, but because we always find ourselves assuming it. I cannot see any reason to suppose that beliefs held on these grounds are necessarily false. I do not, of course, mean to assert that they are necessarily true. We certainly often abandon assumptions when we become aware of them. But if we do that it is only to replace them by others. As I have already indicated,

<sup>1</sup> I reserve for discussion on some other occasion the difficult problem how far we are justified in speaking of assumptions of feeling and action. We can find quite enough illustrations from the more obvious case of assumptions of thinking.

I think the assertion of the Idealist logicians that we cannot significantly deny without asserting something else, is true of the examination of assumptions, whatever it may be in other fields. So that there seem to be good grounds for the metaphysical assumption that there are assumptions which we cannot help making if we could only find out what these are.

But before such a point of view could possibly be put forward for acceptance certain very important explanations and qualifications would have to be made. I may recall here the previous argument that assumptions are only intelligible as the assumptions of certain operations of the mind. The error is certainly sometimes committed of supposing that we ought to be able to express an assumption in the form of a proposition, and that then, considering such a proposition by itself, we ought to be able to see intuitively that we must necessarily believe it. If I am right, however, in maintaining that we cannot even understand it thus taken in isolation, it is obvious that such a supposition cannot be true. I suppose that Kant was pointing out an error of this kind in his criticism of the use of the principle of causation in one of the classical proofs of the existence of God. At any rate, it seems to me clear that the only way in which we could see whether we must believe it would be by trying it first in actual operations and seeing how far, if at all, we could go on thinking on different, or contradictory assumptions. I can quite well imagine that an assumption, when stated as an isolated formula, might not seem to us to be necessary at all, but that when we went on thinking with it in mind we might find that we could not help continually falling back on it. So in the end we might eventually come to the conclusion that we really could not do without it.

An important conclusion seems to me to follow from this about the methods of philosophical discussion. However many philosophers may have fallen into the

error indicated in the last paragraph, certainly a great many more have been treated as if they had done so, when in fact they have not. It is inevitable that a philosopher should put the conclusions of his examination in the form of a series of propositions with, at most, only very slight mention of all the many mental operations in which he found that they were assumed. But however these conclusions may be expressed, they are really the result with any serious thinker of long reflection on the experience of many such operations. We cannot understand, much less criticize, the conclusions unless we have gone through something like the same process for ourselves. A quotation I gave earlier expressed the experience of the elementary stages of understanding philosophical statements. Essentially the same kind of thing has to be done more systematically by philosophers themselves in considering each other's views. Most of us probably have had the experience of the slow dawning of apprehension of what a particular thinker was trying to convey to us long after our first acquaintance with his views. But this is by no means necessarily a reflection on the thinker. Indeed I am inclined to say that we can hardly ever do justice to a philosophical theory on first reading unless we happen to have already been thinking for some time on the same lines ourselves.

This throws some light on the charges so often brought against Philosophy of being abstract and remote from real life, or of being obscure and unintelligible. The charge of being remote is, I believe, never true of the actual thinking of any philosopher of importance. But his expression of his views would naturally and necessarily appear so to anyone who wanted the whole work of understanding to be done for him by the writer. Understanding is only possible by co-operative effort on the part of the reader, and by a willingness to try how the views put forward work in his own experience. No one else can do this for him. It is the same with the

charge of obscurity. Doubtless a philosopher can do a great deal to make himself clear, and it is his duty to make every effort to do so : we shall probably be wise not to be too sympathetic and charitable to our own efforts in this direction. But when we are dealing with the work of others we should at least bear the possibility in mind that its apparent obscurity may be in us rather than in the writer. Conversely, I may add, apparent lucidity may really mean that we, the readers, have not made the effort which would reveal to us real difficulties in the exposition. As an undergraduate I used to laugh at a phrase used by one of my tutors when he said that a particular writer who seemed to me admirably clear at first reading was "ultimately more difficult" than another who repelled me as obscure. I now think that such a phrase enshrines a profound truth. As Kant says, "There is no art in being intelligible if one renounces all thoroughness of insight."

There is a further more important conclusion which seems to me to follow. And that is that absolute certainty is unattainable in Philosophy, and that differences of opinion will always be possible. We shall probably find the best prospects of unanimity when our conclusions are purely negative. There does seem, at times, something very near universal agreement to abandon certain assumptions that have previously been held. And there seems no reason to doubt that on some such occasions the agreement has been arrived at, in part at any rate, as the result of philosophical discussion of the assumptions concerned. Such results as these are often overlooked, because they do not, of course, appear as an addition to a systematic body of knowledge called Philosophy, but as a change in our ordinary ways of thinking and talking : certain arguments which depend on these assumptions disappear from common use. But, of course, we cannot claim absolute and final certainty that they may not re-appear in later generations, difficult though it may be to imagine their doing so.

When we come to the positive formulation of assumptions, even in a very limited field, the possibilities of disagreement are greater. And they are greater still when it is a matter of the systematic construction of metaphysical theories. All this is only to be expected. Of course, individuals differ very greatly in their ability for philosophical thinking, in their readiness to give the time and effort that it demands, and in their susceptibility to certain disturbing prejudices. But even if we put all this on one side, we must still recognize that the experience of any individual is necessarily partial, and no one can ever be sure that he has not omitted from consideration some kind of experience which would force him to modify the assumptions extracted from the experience he has had. I do not accept, however, what I suppose would be the view of a strict Absolute Idealism that this is always and necessarily so. Certainty may only be attainable in the Absolute. But truth and certainty do not mean the same thing. It seems to me that philosophical propositions or theories may be true or false, and that we may give reasons for thinking them to be probably either one or the other, even though we recognize that we cannot get absolute certainty and unanimity.

It would, however, be a great error, but one which is often committed, to exaggerate the disagreement of philosophers. It seems inevitable from the nature of philosophical thought that in a sense it should express a personal vision, but it is never merely personal. If it were, no two philosophers could agree or even understand each other, whereas in fact there is a great amount of mutual understanding and agreement. The existence of different schools of thought is significant just as much for the agreement between their members as for their disagreement with each other. At any rate, I reject absolutely the assumption that the possibility of disagreement is incompatible with the objective reference of the beliefs. The sharp and absolute distinction

between public and private judgements which appears in some current literature seems to me quite baseless. There are already signs that the attempt to apply this distinction rigidly would result in the exclusion, not only of Metaphysics, but of most forms of thought with which we are familiar. Certainly most beliefs that we talk or think about in our daily lives are matters for disagreement in fact, whether or not they are "in principle," whatever that very elastic phrase may mean. I can see no reason for being too easily shocked at a lack of unanimity, nor can I admit for a moment that it makes a subject unworthy of serious study.

I cannot help suspecting a certain emotional element in the shrinking from Metaphysics which in some current literature seems, to judge by the language used, to amount to a positive hatred of it. We are familiar with that longing for a certainty, or at least for the prospect of it, in which we could rest secure, and with the fear of the responsibility of having to choose an opinion for oneself whether other people believe in it or not. Such feelings are not a sound basis for theories of knowledge. But they are very natural and have expressed themselves in many different forms. I suspect that the Logical Positivists, and their much less logical camp followers, may be in part influenced by the same motives as in very different circumstances might induce a man to submit himself to the infallible authority of the Catholic Church.<sup>1</sup>

<sup>1</sup> [I am aware, of course, that the latest developments by some representatives of this school seem to be carrying it far away from anything that would satisfy those desires : of some of these developments, indeed, I find it impossible to believe that they will long continue to satisfy anyone. But this does not weaken the probability that in the early development of the theory these desires played a certain part.]

I should like to add here that it is far from my thought to dismiss the doctrines of Logical Positivism as merely false. On the contrary, it is clear that the phrase in which they formulate one of their central doctrines—"the meaning of a proposition is to be looked for in the method of its verification"—might well be used to express my own view of philosophical thinking. I should dissent, of course, from their very limited view of the possible methods of verification. And I should maintain that there are other kinds of thinking of which this statement is certainly not true.]

There is still a further word to be said about disagreement in Philosophy, whether in the form of disagreement about the assumptions of one particular set of operations, or of disagreement between two systematic metaphysical theories, or of change in our own views from one period to another, which is perhaps the form in which it is most easily studied. I believe that if we approach other opinions in the way in which my argument indicates, we shall rarely feel inclined to reject any considered view as simply false. When we do so reject it, it is generally because we have been considering it as a proposition or series of propositions in isolation from the experiences which led to it, and then comparing it with the propositions in which we express the results of reflection on our own experience, and which are only intelligible in the light of that experience. It has often been suggested, for instance, that the difference of opinion between Plato and Aristotle was partly due to the fact that Aristotle was thinking so often in terms of biology and Plato in terms of mathematics.<sup>1</sup> In any case, when we try to interpret another man's view in the light of his experience, or of the particular operations of thought which he had in mind in forming it, it will obviously wear a very different look from what it will if we interpret it solely in the light of the particular sort of experience which led to the rival view. If we still criticize it we shall be much more likely to criticize it as inadequate or one-sided than as merely false. Even criticism in these terms, if it is to be effective, must be based on a realization of the truth in the view criticized, in the sense that we must understand what the operations of thought were in which it really did seem to be assumed. I have sometimes thought that we cannot understand a philosophical view unless we have gone through the

<sup>1</sup> I believe there is a great deal of truth in this, but I think that we should have to add to it that Plato was also thinking much more seriously than Aristotle about practical moral problems.

experience of believing it. Even if that is overstated, I am sure that we cannot understand it unless we have been able to put ourselves in a position in which we could imagine what it would be like to believe it. And when we have done that we shall generally see that even if we reject it as it stands, we have somehow to do justice to it in the alternative view which we finally adopt. The kind of approach recommended may be illustrated in a limited field by what I have already said about the mechanical model view of scientific explanation. It might be illustrated on a larger scale by Dr. Ewing's treatment of causality in the paper read before this Society and subsequently published in his book on *Idealism*.<sup>1</sup>

I will conclude with an expression of personal experience. I have never attempted to construct a metaphysical system. I doubt whether anyone would be wise even to attempt to do so until they have been reflecting on philosophical problems for thirty or forty years. Like my predecessor in this chair I do not know whether such a construction is possible.<sup>2</sup> I feel convinced that it cannot be proved to be impossible. The attempt at any such proof would, on my view, which as far as I can see is confirmed by actual experience, necessarily base itself on certain metaphysical assumptions. But what can be achieved in this direction can only be discovered by trying. As for the actual

<sup>1</sup> Dr. Ewing's whole criticism of Idealism seems to me, if I may say so, in many respects a model of the kind of approach I am pleading for. Most of the earlier Realist criticisms, on the other hand, make the impression of being based on exactly the kind of approach that I am protesting against. In making this criticism of them I am at any rate following my own prescription, as I have gone through the stage, at an earlier period, of finding them absolutely convincing and conclusive.

<sup>2</sup> See Prof. Stebbing's paper in the *Aristotelian Society's Proceedings*, 1932-33, on "The Method of Analysis in Metaphysics." But I suppose that if we admit that any true conclusion about reality can be drawn from the examination of assumptions we must admit the possibility that someone at some time might draw all the true conclusions that could be drawn. When he had done this and seen their relations to each other he has, I suppose, achieved a correct metaphysical system.

attempts so far made I am unable to find any of them convincing. On the other hand, I should certainly not suggest that a finally satisfactory system if found would differ in every important respect from those so far put forward. My view, as my argument would indicate, would be that a finally satisfactory system would have to be constructed very largely out of recognizable fragments of the systems that went before. I can only say for myself that when I have made the effort to master any one of the great systems of the past I have felt that I carried away a great deal of new light from it. That experience, I may remark in passing, is not remotely like the enjoyment of a work of art to which it is sometimes compared, though something of that may come in incidentally. It has seemed to me primarily an experience of intellectual enlightenment, an increased understanding of what is going on in various operations of thought, a realization of fresh questions that have to be asked and of new possibilities of answering them. I think that such enlightenment as I have had in recent years has mostly come from this source. Yet, to be true to my own argument, I must admit at least a theoretical possibility that this is all an illusion, and that in reality, as my studies go on, I may be sinking deeper and deeper into the bogs of error and ignorance.

1934.



## II

### FACULTY PSYCHOLOGY AND INSTINCT PSYCHOLOGY

**M**OST students of Psychology are introduced at an early stage in their studies to the Fallacy of the Faculty Psychology. It is explained to them that this consists in dividing up the human mind into different faculties and explaining the different kinds of conscious experience or mental activity by referring each to its appropriate faculty. It is pointed out that the faculty for any kind of action merely means the fact that we are capable of it, and to say, for instance, that we can speak because we have a faculty of speech is merely repeating the same thing twice over. It is no explanation at all, any more than it was when Molière's doctor explained that opium produced sleep because of its soporific qualities. And the student is very properly warned against the frequent tendency to take such sham explanations as giving us real knowledge. It is generally assumed that the fallacy in this particular form is finally disposed of. But the warning against it is valuable if it makes us keep our eyes open for a possible recurrence of the same fallacy in a different form. And I propose to ask here whether there is not a great danger for certain lines of speculation in modern Psychology of erecting Instinct and the instincts to the same false position as was formerly occupied by these "faculties."

I would suggest that the fundamental error of the Faculty Psychology lay in thinking that it was possible to

explain, to use Dr. McDougall's phrase, mental function by and in terms of mental structure, whereas, as a matter of fact, it is only possible to talk or think of mental structure at all in terms of mental function. The distinction between function and structure is, of course, fundamental, whether we express it in Dr. McDougall's phraseology, or talk, in Aristotelian phrase, of the distinction between permanent dispositions and the activities in which they express themselves. But in using it there are two things which it is essential to remember. In the first place we must remember that the only evidence we have or can have of the existence of any permanent disposition, of any piece of mental structure, is the activity which we observe in others or experience in our own consciousness. And more important still is it to remember that the only way that we can think of or describe the permanent dispositions is in terms of the activity. We can only speak of it as the disposition to this or that activity. We can only describe a tendency as the tendency to act, think, or feel, in this or that way. The tendency or disposition by itself is an X, an unknown quantity, which simply means nothing to us unless and until it is expressed in terms of the activity to which it leads. This is just the difference between a mind and a machine. We can look at a machine at rest and observe its shape and the way in which its parts fit into one another, and that helps us to understand why, when it is set in motion, it works in a certain way. And this knowledge that we have of it at rest may be something more than and different from our knowledge of what it does when at work, and is then, so far as it goes, a true explanation of what it does. But the mind is not like this. We cannot examine it while at rest. We only know it when in activity, in our own conscious experience or in the perceivable actions of other people, and its permanent structure can only be deduced from and described in terms of these forms of activity.

The application of these considerations to the Faculty Psychology is obvious. How does it apply to the treatment of Instinct?

Take any ordinary definition of Instinct. An instinct is often defined in some such terms as these: An inherited or innate tendency to act in a certain way, normally conducive to the preservation of the individual or the welfare of the species, without previous experience and without foresight of the end to be attained. Such a definition tells us generically that it is a tendency to action, and specifically it tells us (i) how it got there, *i.e.* that it was inherited or inborn (ii) what results it normally produces, *i.e.* the preservation of the individual or the race, and (iii) negatively, that the action takes place without, or if we cannot quite accept that, independently of certain other kinds of mental activity or conscious experience, *i.e.* foresight of the end to be attained and previous experience of the action. Other more elaborate definitions may modify this in unessentials, may expand it or may add to it by describing other forms of mental activity which are supposed necessarily to accompany actions of this kind, as when Dr. McDougall maintains that they are accompanied by a specific emotion, or Mr. Shand asserts the invariable presence of a feeling of impulse. But from all these definitions one thing emerges clearly, that we can only describe or think of any such tendency in terms of that to which it is a tendency. We cannot examine it or describe it by itself, or say anything about what it would be like when it was not actually issuing in action.

To say, then, that any action is instinctive or due to Instinct gives us valuable information. It tells us, if the definition is sound, something about the preconditions of the action, something about its probable results, and something about the conditions which accompany it and about the conditions which do not necessarily accompany it, although they may accompany other

actions whose external physical features are similar. But it does not explain the action by describing something else different from the action, in the sense that we can explain a particular motion of a machine by describing the permanent structure of the machine. This "something else" in the case of Instinct, can only be thought of as that which leads to the action. We think of Instinct as something in our innate mental structure of which all that we can say is that by virtue of it a person or an animal performs certain actions without previous experience and without foresight of the end.

But now what happens when we cease to talk about Instinct and begin to talk about the instincts? What information does it convey to us when we are told that a certain action is due not only to Instinct but to some particular instinct? If such a statement is to give us any real information, it must tell us something more than the general facts which are conveyed to us by saying that the action is instinctive, and what is more important, it must tell us something more than we can gather from an inspection of the action itself. Thus if we see bees building cells and someone tells us that they do this because they have a cell-building instinct, the word "instinct," it is true, tells us something important about this action, but the word "cell-building" is entirely superfluous and tells us nothing at all that we did not know already from the inspection of the action. Particularly it must be remembered that, when we are speaking of our own actions or of those of beings like ourselves, the ascription of an action or of any kind of conscious experience to any particular instinct must, if it is to give us any genuine information, tell us something that cannot be derived from an inspection of our own consciousness at the moment of the experience.

The case is different when we ascribe two or more

qualitatively different actions or different experiences to one and the same instinct. What could such a way of speaking mean? What information is it supposed to convey to us? The question must be carried further back, and we must ask how, if we are going to speak of different instincts at all, we are going to classify the instincts and on what principles we are to distinguish one from the other. The question seems to lie at the root of a great deal of discussion on the instincts, and yet it is difficult to find anywhere any satisfactory answer to it. Thus psychologists dispute about the number of different instincts which we are to recognise: James distinguishes nineteen, McDougall a dozen, while Trotter, in his *Instincts of the Herd*, says that there are really only four. To decide such disputes the essential preliminary would seem to be a clear and definite statement of the *principium divisionis*, of the standard of what makes one instinct.

It is clear from what has been said that there is only one way of distinguishing and classifying the different instincts, and that is by distinguishing and classifying, on some principle or another, the different forms of activity to which they lead. And these may be classified in different ways according to the exact point in which we are specially interested.

Thus, if our interest was primarily biological, we might classify instinctive forms of activity by their external results. We might perhaps start from two great classes of instincts, those which tended to the preservation of the individual organism and those which tended to the preservation of the species. The former class might again be sub-divided into those which tended to preserve the individual by aiding it to gain food, those which tended to preserve it from the attacks of possible enemies, and so on. This would be quite a scientific method of division. If we classified instincts on this principle and then ascribed some

particular action to one or other of these instincts, the information that we should be giving about the action would be (a) that it was instinctive in the sense defined above, and (b) that it tended to produce certain results beyond itself. Or we might adopt another principle of division, and classify instincts by the resemblances in external form of the actions which they produced. Thus we might distinguish the cell-building instinct of the bees and the web-making instinct of the spider, the instinct of flight from danger and the instinct of immobility in face of danger. But all these divisions tell us nothing about the instincts themselves—they are simply descriptive distinctions between the different visible features of actions which we declare to be instinctive.

If our interest was primarily psychological, we might attempt to classify the different kinds of instinctive action by what they felt like, by the difference in the conscious experience which accompanied them. The possibility of doing this obviously depends upon what we think about the psychical accompaniments which always and necessarily are found with instinctive action. If, for instance, we hold with Mr. Shand that the invariable accompaniment of instinctive action is a feeling of impulse, then it is clear that this will give us a valuable test for distinguishing instinctive action from other kinds of action, but will not give us any guidance in classifying the different instincts. For the "feeling of impulse," whatever it may mean, does not differ *qua* feeling of impulse from one kind of action to another. It can only be distinguished as a feeling of impulse *to* this and that kind of action. And so we should be back once more at the difference between the external features of the different actions as our only principle of division.

If, on the other hand, we adopted Dr. McDougall's view that instinctive action was necessarily accompanied

by some emotion, we might seem to have got a valuable principle of classification. For emotions differ in kind, and we might therefore classify different kinds of instinctive action by the different emotions with which they were accompanied. But we should have to guard against the danger of imagining that such a principle of classification gave us more information than it really did. It would not, for instance, enable us to decide whether a particular emotion always accompanied a particular kind of action, whether, for instance, the emotion of fear and the instinctive action of flight were necessarily connected with one another. That would be a matter of fact to be decided on the evidence in each particular case. Our principle of classification would be once more simply descriptive. We should have to group together all actions which were, as a matter of fact, associated with this particular emotion, and we could, if we chose, apply to this group the name of a particular instinct. But the ascription of a particular action to this instinct would tell us that the action was, in fact, accompanied by this emotion, and it would tell us no more than that. I am not concerned here to discuss whether instinctive actions are in reality always accompanied by a particular emotion. As a matter of fact, the available evidence seems to me decisively against this view. But the assertion that it is so is perfectly intelligible, and if it were true it would give us a perfectly intelligible system of classification.

Perhaps a word should be said here about another possible principle of classification which might be legitimate for certain purposes within the biological universe of discourse. We might group together all the types of instinctive action which were in the same historical line of descent. Supposing we found reason to believe that one sort of instinctive action had developed by imperceptible variations in succeeding generations into another sort, we might, for purposes of

historical exposition, group together all the successive forms of this. But the grouping would have no application outside these limits. Above all, in no intelligible sense of the word could we say, neglecting the variations, that the actions were the same or due to the same instincts. It is possible that man has developed by a series of variations out of an *amœba*. But if we said that, because of this, we might expect men to act in the same way as the *amœba*, and still more if we said that, in any sense of the word, man was the same as the *amœba*, we should be talking meaningless nonsense.

Finally, there is another theoretical possibility, though it is doubtful whether it is ever realized in fact. If we found types of behaviour, differing both in their external features and in their psychical accompaniment, which nevertheless were always found together in all cases in which they occurred, and if we found that the strength of the tendency to the one type always varied in exact proportion with the strength of the tendency to the other, we should have some justification for supposing that there must be some deep-rooted connexion between the two in the permanent mental structure. In such a case we might be justified in speaking of them as being due to one and the same instinct. But we might equally well—for it would tell us just as much or as little—say that they were due to two different instincts which were necessarily connected with each other. For the point would be that they were somehow connected so that if we found the one we might also reasonably expect to find the other in the same individual.

In all these cases we are speaking, as we must do, of the permanent disposition in terms of the activity to which it leads. But now suppose that it is a question of two entirely distinct types of behaviour, with no felt resemblance in the conscious experience which accompanies them, and not always or generally found

together. In such a case we cannot possibly speak of them as being due to the same instinct. Not only is there no evidence of any kind for it, but it is strictly meaningless. It involves speaking of an instinct, not as that which produces a certain type of behaviour but as a definite thing within the mind, of which we can have some idea apart from the behaviour which it produces, and which may show itself in entirely different kinds of behaviour or conscious experience. And this is unintelligible. Such an idea cannot be thought out. We only think it has some meaning because we escape our own notice in the illegitimate use of physical and mechanical metaphors in dealing with things of the mind. It is exactly the fallacy of the Faculty Psychology. It involves thinking of the mind as a machine which we can look at at rest or at work. It involves the idea that we can understand and think of mental structure or permanent disposition apart from mental function or activity, and can explain the latter by, and in terms of, the former. And this is just what we cannot do.

And yet, as it seems to me, there is a great danger in psychological thinking of falling into this error. And I believe that it can be clearly detected in certain modern psychological discussions, where it threatens to put the whole line of investigation on the wrong track, and to lessen or destroy the value of the results which might be or have been reached.

I find it, for instance, prominent in the writings of Freud and his school. They tell us that many very different forms of behaviour are due to one and the same sex-instinct. But it is impossible to find in their writings a clear and satisfactory statement of what they mean by this one instinct, of what their standard of unity of an instinct is. We could understand it, for instance, if they ascribed to the sex-instinct any kind of behaviour which was accompanied by or influenced by some stimulation of the physical sex-organs. This would be

a perfectly intelligible criterion of the working of this particular instinct, though it might be difficult to make a similar principle the ground of classification in other cases. But it is evident that they extend its meaning much more widely than this. Dr. Ernest Jones, for instance, speaks of the localization of the sex-instinct in the sex-organs as occurring only at a relatively advanced stage of development. It was perhaps considerations of this kind which have led Jung and his followers to replace the special sex-instinct by the general *libido*.

We may find the same way of speaking in writers who have been influenced by Freud without adopting the whole of his views. For instance, in Dr. A. G. Tansley's *The New Psychology* we find throughout phrases like the following: "the use of energy *belonging to a primitive instinct* in what is commonly called a 'higher channel,'" "a large amount of *sex energy* is, of course, constantly diverted to other channels," "the use of the energy *derived from* a primitive biological instinct in higher conations belonging entirely to the mental sphere." [Italics my own.] As I am not writing a criticism of this book, I do not wish to discuss whether these expressions are merely occasional lapses into a loose use of language, or whether they represent a point of view that underlies the whole thought of the author. But let us consider them as they stand and ask what they can mean. If we are asked to think of the psycho-physical organism as something endowed with a limited amount of energy which can be released in different directions in different circumstances the description has some meaning for us. Only then we cannot talk of the energy of or belonging to or derived from this or that particular instinct. The energy "belongs to" the whole individual and is only applied in this or that form of instinctive behaviour. Any other way of speaking involves the unintelligible notion of the energy as something which can be divided up

into little bundles, each quite distinct from the other, perhaps even qualitatively different, and each the property of a particular instinct, which can use it itself or hand it over to some other impulse. And this involves the fallacy that we have been considering, of thinking of "the instinct" as an individual thing in itself.

We find, perhaps, the most striking examples of the tendency I am criticizing in a different field, the field of the so-called Social Psychology. It is claimed by many workers in this field that a great increase in our understanding of social phenomena is to be looked for in an application to them of our knowledge of the instincts of human beings. It cannot be said that, judged by results, the success of this line of approach has so far been very striking. And this is hardly surprising if the investigators start from such radically misleading assumptions about the nature of the instincts as those which I have been attempting to criticize. That in too many cases they have so started seems certain. I will illustrate my contention on this point by a brief examination of some of the arguments in a recent book of popular Social Psychology, Mr. Trotter's *Instincts of the Herd*. The treatment of the instincts in this work seems to me to illustrate better than any other example the ways of thinking against which I am protesting.

The first point to notice is Mr. Trotter's classification of instincts. He objects to the tendency of some authors "to ascribe quite a large number of man's activities to separate instincts" as being "based upon too lax a definition or want of analysis." There are really, he maintains, only four main instincts, the instincts of self-preservation, nutrition, and reproduction, and the herd-instinct. He nowhere tells us what is his principle of division or his criterion of what makes one instinct, so that we are forced to try to discover this from the classification that he gives us. But on looking

at this it is impossible to escape the impression that he is unwittingly using more than one principle of division.

Take, for instance, the "instinct of self-preservation." Self-preservation is not, of course, one single kind of action, the same for all creatures in all circumstances. We have to look, therefore, for the principle of classification in this case in the results. Every "inherited mode of reaction" which tends towards the preservation of the life of the individual organism would, on this principle, be ascribed to "the instinct of self-preservation." It might be asked why, on this principle, the "instinct of nutrition" should not fall under "the instinct of self-preservation," as a sub-class. For clearly the taking of food is as necessary for the preservation of the life of the organism as, say, protection from the attacks of enemies. We need not, however, press that point, for the most interesting thing is the relation of the herd-instinct to these other instincts. If we are classifying instincts by their results, we have to ask ourselves what are the results of the tendency of certain animals to congregate together in herds or packs. And we find, as Mr. Trotter himself points out, that the biological result of the tendency is, in some cases, protection from external enemies, and in others increased capacity for hunting and catching prey. So that it is clear that, if we adopted this principle of classification consistently, we should ascribe the instinctive "herd-activities" in some cases to the instinct of self-preservation and in other cases to the instinct of nutrition.

The fact that the herd-instinct is distinguished from the other shows that in speaking of it Mr. Trotter has slipped over to another principle of classification. But what exactly this is it is difficult to discover. In one passage he seems to suggest that all actions are due to the herd-instinct which do not necessarily "favour the survival of the individual as such, but favour its survival

as a member of a herd." This would be once again to put the principle of classification in the results, and not in anything in the psycho-physical structure itself. But it is difficult to see how this can be intelligibly applied. Take the primary gregarious instinct itself. The tendency, say, of cattle to congregate in a herd favours their survival. To say that it favours their survival as members of a herd is simply an identical proposition. And to say that it does not tend to favour the survival of the individual as such is meaningless. It would be as reasonable to say that the tendency to run away from danger did not favour the survival of the individual as such, but only of the individual as running away from danger.

Judging by the variety and diversity of actions which he ascribes to the herd-instinct, he seems really to ascribe to it any kind of behaviour which is in response to any stimulus arising from the relations of the creature to the other members of the group or society in which it lives. It is obvious that such a classification of forms of behaviour would have a limited value for certain purposes. It would serve to mark off the field of investigation at the beginning of our inquiries. But, in doing this, it would by itself tell us nothing. It would merely ask a question or suggest a problem. It would not be in any sense an explanation of all the different kinds of reaction to the herd or the group which had been observed. Above all, it would not enable us to attach any meaning to the notion of a single herd-instinct which was somehow the same thing whatever the difference in the kind of behaviour that it caused. The only things which are the same are some of the most general features in the circumstances in which the different actions take place.

Mr. Trotter, however, evidently thinks that the ascription of any kind of behaviour to the herd-instinct gives us a great deal of valuable information. And he

describes many social phenomena which he claims to explain or make intelligible by referring them to this one herd-instinct. The list of all the different forms of behaviour which are due to the herd-instinct is a truly remarkable one. In it we find gregariousness in the limited sense, the tendency, that is, to join together in groups, the tendency to imitate the actions of other individuals, the susceptibility to leadership, the dislike of innovation, the respect for old age, religion, altruism, and many other forms of behaviour. Among these latter we find the antagonism to the spread of altruism which may sometimes lead to its violent suppression. "This," Mr. Trotter writes, "is a remarkable instance of the protean character of the gregarious instinct and the complexity it introduces into human affairs, for we see one instinct producing manifestations directly hostile to each other—prompting to ever advancing developments of altruism, while it necessarily leads to any new product of advance being attacked." All this certainly seems an overwhelming amount of work for one instinct to get through. And it becomes more and more difficult to understand what possible meaning there can be in talking of one instinct in all the different cases, unless we are thinking of an instinct in a way which, as we have seen, is wholly illegitimate and ultimately unintelligible.

Consider it in the light of particular instances. We find what is usually called the gregarious instinct strongly developed in cattle. Without, so far as we know, feeling the slightest affection for, or indeed interest in, one another individually, they yet are impelled by an irresistible tendency to keep constantly together in a herd. And on the other side let us set an instance of altruism in the highest development, say, the Good Samaritan, who out of the purest love and sympathy and human kindness succours the wounded traveller. What can be meant by saying that the cattle and the Good Samaritan are acting under the influence

of the same instinct? We might ask, further, what is meant by saying that the Good Samaritan's action is due to instinct at all. If it simply means that it proceeds from his inherited character, that he was born with a sympathetic and pitiful nature, no one would object to the statement, except perhaps those fabulous monsters, the "rationalizers" or "intellectualists," with whom Mr. Trotter, like certain other psychologists, delights in carrying on a continual skiomachy. If, on the other hand, it is meant that his actions were, like the cattle's, not the result of the feeling of love and sympathy, or that they were taken without foresight of the end, then it is, of course, a simple misdescription. But even if this question is satisfactorily answered, the first difficulty remains. When we are dealing with two different types of action, whose external features and whose conscious psychical accompaniment are entirely different, what possible meaning can there be in saying that they are due to the same instinct? Under certain circumstances we might find it useful for certain purposes to treat different actions as due to the same cause, even though we could have no idea of what that cause was in itself apart from the actions. If we always found gregariousness and loving sympathy combined together in the same individuals and if the two always varied in intensity in the same proportion, there might be some point in it. If we could understand the Good Samaritan's state of mind better by studying the habits of cattle, or if the study helped us to breed or educate Good Samaritans, or to judge what people would be likely to show themselves Good Samaritans, or how the Good Samaritan would act in other circumstances, there might be some reason for classing the two kinds of behaviour together. But obviously none of these conditions are fulfilled in this case. And the assertion that the cattle and the Good Samaritan are moved by one and the same instinct remains not only unprovable but unmeaning.

I do not wish, in all this, to appear to deny that the social phenomena to which Mr. Trotter calls attention are worthy of careful study from a psychological point of view, or that they are in many cases acutely observed and well described by him, even though with a considerable degree of exaggeration. But I do maintain that there is nothing to gain and everything to lose by lumping them together in an indiscriminated mass, as the products of the herd-instinct. And I maintain further that the actual description of the phenomena themselves could be equally well carried out by an observer who had never heard of the herd-instinct and who did not use the term "instinct" at all, and that the only addition that is made by talking about the herd-instinct is the addition of an empty name which tells us nothing and obscures much.

It would be difficult, perhaps, to find another such instance of a whole book based throughout on this modern form of the Fallacy of the Faculty Psychology. But there are traces of it in the work of many writers. There is reason to suspect its influence, for instance, even in the work of so careful a writer as Dr. James Drever. When he writes in his *Instinct in Man* of the gregarious instinct, as seen, *e.g.*, in the behaviour of cattle, that its impulse "takes the form" of active sympathy at the human level of development, it is very difficult to attach any meaning to this which can be accepted as intelligible consistently with the principles that have been laid down. There may be such a thing as a felt impulse to keep together in a crowd in the cattle. But we can tell from our own experience—for we certainly at times feel such an impulse ourselves—that it is an entirely different thing from the feeling of active sympathy, that the two are not necessarily found together at all, and that still less do they vary in intensity with each other. That being the case, it is difficult to see what can be gained or

what can be meant by ascribing them to the same instinct.

May we not, again, suspect the presence of this fallacy in a great deal of the controversy about the exact number of the instincts, between the "splitters" and the "slumpers," to use the lively American description? If it were simply a question of classifying the different forms of instinctive activity, we could only criticize a view on the ground that the activities themselves had been wrongly described in some way or other, or else on the merely practical ground that the principle of division employed was not the most convenient for the purposes of the particular investigation. But I think that there is a good deal more than that in the controversy as it is actually carried on. And I confess to an uneasy feeling that the distinguished psychologists who have taken part in it may be found to have been wasting their time over one of M. Bergson's "*questions qui ne doivent pas se poser*."

Supposing that the principles laid down above were accepted, how should we proceed in our investigations into Instinct and instinctive action? We should begin, in the first place, by an examination, not of "the instincts," but of instinctive behaviour. And by "behaviour" I mean not merely the physical movements of the body, but any kind of activity, physical or mental, the "behaviour" open to inspection by introspection just as much as that open to inspection by sense perception. The first task would be a correct description of that, so far as it was possible, and so far as it was necessary for our purposes. We should then have to decide what characteristics of behaviour should be taken as the essential mark of instinctive behaviour, and what other accompanying characteristics were invariably found with these. The first problem, if the description was correct, would be mainly a matter of practical convenience, and the second a matter of correct observation and description. From this point of view

we should see in its true proportions the problem of the extent of the field of behaviour to which we applied the term "instinctive," the question, for instance, whether we were going to confine it to action in the sense of bodily movements, or were going to extend it to any form of conscious mental activity, emotions or desires or anything else. This would become partly a question of fact, whether certain bodily movements and certain forms of conscious experience were necessarily connected together, and partly a question of convenience, whether the use of the same term for different kinds of behaviour did or did not tend to obscure differences which were actually there and lay too much stress on comparatively unimportant resemblances. So far as we did attempt classification and division it would be on one or the other of the principles which we have recognized as legitimate. Above all, we should studiously avoid the Fallacy of the Faculty Psychology of attempting to describe what we know in terms of what we cannot know, and of putting forward the latter as in any sense an "explanation" of the former.

I will conclude with what to some may seem the most debatable proposition that I have yet put forward. The moral of this seems to me to be that these and many other confusions arise from the premature attempt to emancipate Psychology as a separate science from Philosophy. I do not mean by this that Psychology should or can be treated merely as a branch of one of the other recognized divisions of Philosophy. I mean that a separate science can only be pursued as such if, as a general rule, its assumptions and categories are accepted and used without the constant need for a critical examination of them. But in Psychology, as it seems to me, we have not yet arrived anywhere near the point where there is anything like a general agreement or a clear realization of these assumptions and categories. And therefore it is essential that, for the present, throughout our psychological investigations we should

preserve the philosophical point of view which examines assumptions and criticizes categories, a procedure which in a science that has arrived at an independent status would be unnecessary and indeed, in general, a hindrance only.

1921.



### III

## THE PSYCHOLOGICAL ACCOMPANIMENTS OF INSTINCTIVE ACTION

**I**N a previous article on this subject I attempted to make some suggestions about the proper method of approach to the problems of Instinct and instinctive action. And in the course of that article I referred to the views of those who hold that every kind of activity which we can call instinctive is necessarily accompanied by some kind or another of conscious experience, and that one way, perhaps for the psychologist the only way, of defining instinctive behaviour is to state the particular form of conscious experience by which it is accompanied. I propose now to attempt an examination of this point of view, and to ask whether every kind of instinctive behaviour is necessarily accompanied by some one kind of conscious experience, and if so, by what kind.

At the outset we must distinguish between two different questions. It is one thing to ask whether all instinctive behaviour, in particular instinctive bodily action, is necessarily accompanied by one kind of conscious mental process, and quite another to ask whether certain kinds of conscious mental process should be properly described as instinctive in the same sense as certain instinctive bodily actions, even though the two forms of activity, the conscious mental processes and the bodily actions, are not always or necessarily found together. Our opinion on the latter point will largely depend on how much we include in our definition of Instinct and instinctive. If, for instance, anything

that proceeds from our innate psycho-physical structure is to be called instinctive, we shall probably not have much difficulty in applying the term at any rate to many of our conscious mental processes. If we mean more than that by the use of the term "instinctive," it will be a matter for investigation in each particular case whether the conscious mental process in question resembles the instinctive action to such an extent that we are warranted in applying the same term "instinctive" to both of them. Some of the precautions suggested in my last article might possibly be found to bear on this investigation. But in any case that is not the question which is being discussed in the present paper, which deals only with the former question. What, if any, are the conscious mental processes which always and necessarily accompany instinctive behaviour?

It seems to me that any discussion of Instinct must start from an examination of instinctive bodily action, because it is to this kind of behaviour that the term "instinctive" is universally and unquestioningly recognized to apply. And no definition of the term could possibly be accepted unless it could be applied to the bodily actions which are admitted by everyone to be properly called instinctive. But before we ask what are the conscious accompaniments of this kind of action, there is one other preliminary consideration that we must bear in mind. We, like many at any rate of the other animals, are conscious beings. And therefore any kind of action, instinctive or otherwise, taken while we are conscious must have some kind of conscious accompaniment. But that would not warrant us in putting the conscious accompaniment that we found in any particular case of instinctive action into the definition of "instinctive," unless we had reason to believe that there was some necessary connexion between the action and the conscious accompaniment, so that we could not have one without the other. It is possible that, in ourselves, for instance, instinctive action might be

accompanied by some form of consciousness without being necessarily connected with, still less conditioned or affected by, this consciousness. In such a case it would be clearly wrong to give the conscious accompaniment in our definition of instinctive action.

One more principle of method may be suggested. It seems likely that a good deal of the difficulties and differences of opinion upon the subject arise because investigators have started the consideration of it from a complicated particular instance or a border-line case, where instinct was clearly mixed up with a good deal else, or where it was uncertain whether the behaviour in question should properly be called instinctive or not. As a general rule it seems preferable, if we are to start with an investigation of a particular instance at all, to start with an instance which unquestionably belongs to the class of things which we are discussing, and where there is as little as possible of any other element. Then in the light of what we have learned from that we may consider the border-line cases. Thus in the case of Instinct it seems to me advisable to start, not from the behaviour of man and the difficult question exactly how much of this behaviour we can call instinctive and how much is due to other factors, nor even from moorhens diving and a discussion of the exact point of time at which their behaviour becomes modified by experience, but rather from certain actions of insects where we seem to get as close as possible to purely instinctive action.

Take any typical instances of insect behaviour. We find a series of actions, often very complicated, performed with extreme precision, and the whole admirably adapted to fulfil a certain purpose, the preservation of the insect itself or the preservation of its offspring. The *Ammophila* wasp seizes a caterpillar, stings it in the exact places where the sting will paralyse it without killing it, places it at the end of the burrow it has dug, lays an egg on it, and then seals up the end

of the burrow.<sup>1</sup> Thus it secures that the larva will be hatched out of the egg in safety, and will have the supply of fresh meat which is needful for it to grow to maturity. Here is an action which, if performed by a human being, could only be explained by a great amount of acquired knowledge and skill, a clear foresight of the end to be attained, and an understanding of the exact means necessary to attain it. But we know that the insect cannot have learnt or acquired this knowledge, and cannot have any foresight of the result which it never sees or has seen. We may say further that it shows no interest in the result. And it is clear, also, if we consider experiments like those of Fabre and Captain R. W. G. Hingston, described in his fascinating book, *A Naturalist in Himalaya*, that there is no understanding of the situation and of what is happening, and no capacity for analysing and distinguishing the elements of the situation or for modifying the action to suit changes artificially produced.

Thus the *Ammophila*, if her burrow is broken open while she is collecting material to seal it up, and the caterpillar and egg extracted and laid outside the door, will make no effort to repair the burrow nor to replace the caterpillar and the egg which are lying in full view, but will calmly proceed to seal up the burrow as if nothing had happened. The Mason Bee builds cells of mortar and fills them with honey. If the cells are broken down before they are completed she builds them up again. But once they are completed she must go on to put the honey in, and if they are broken down after this she makes no effort to repair them, but goes on putting the honey in, cheerfully oblivious of the fact that it is all running out again before her eyes. The spider builds her wonderful web in a certain order ;

<sup>1</sup> I am aware that the experiments of the Peckhams threw some doubt on the alleged infallible skill of the operation. But the exact degree of accuracy displayed by the wasp is immaterial to the present argument.

and if the work she has already done is cut or broken she does not turn back to repair it, though she has all the resources necessary for that purpose, but goes on in the fixed order, irrespective of the fact that the web is getting into a worse and worse tangle all the time, so that it would be almost useless for her purposes.

It is clear from these and many other instances, both from the character of the action and from the conditions under which it takes place, that these actions of insects are certainly not caused or accompanied by anything remotely like the state of mind from which a similar action would proceed in the case of a human being. But from what state of mind do they proceed? What conscious experience necessarily accompanies instinctive action? Let us consider the possibilities.

(1) There may be the consciousness of movement, the feeling in the muscles or the rest of the body when any part of the body moves or is moved. This consciousness must be thought of rather as the result of the movement than as its cause: it does not, by itself, affect or modify the movement in any way. To describe it in terms of our own experience, we should say that we feel the body moving without being able to control or check the movement; as when we blink our eyes in response to a sudden and unexpected faint of a blow. (2) There may be foresight and desire not of the ultimate result but of each particular movement. We can find this, too, in our own experience. We may want to get up and stretch ourselves; we may, if we are young and active enough, want to jump or run, not with any thought of any results that may be produced, but simply, as we say, for the mere pleasure of jumping and running. This may be desire in the full sense, involving a previous idea of the movement and a desire to realize that idea. Perhaps, therefore, the Mason Bee desires to go through in this order each of the particular actions involved in building her cells and filling them with honey, though she may have no desire at all that the

cells should be built and filled with honey. (3) Mr. Shand says that the invariable conscious accompaniment of instinctive action is "a feeling of impulse." I confess to finding this phrase ambiguous. It may be applied to either of the two previous experiences. But I cannot find in my own experience a third thing, different in kind from either of these two, to which the name could be properly applied. (4) It might be, as Dr. McDougall suggests, that instinctive action is always accompanied by an emotion, each kind of action being bound up with a particular emotion. (5) Finally, there is Dr. James Drever's suggestion that instinctive action is invariably accompanied by a feeling of interest. But this phrase by itself is obscure, and may mean several different things. It might, for instance, refer to an interest in the external stimulus, the situation or that factor in the situation which is the occasion of the instinctive action. Thus it might be argued that, if the sight of a caterpillar stimulates the wasp to seize it and sting it in a particular way, the wasp must have had a feeling of interest in the caterpillar to make her notice it in all its surroundings. This would be a preliminary feeling of interest, necessary to set the action going. But that is quite a different thing from an interest in either (a) an idea of the movements, which is in consciousness before the movements take place (b) the results, immediate or remote, produced by the movement, or (c) the actual movements themselves, while they are going on. And there is a further distinction to be borne in mind. If we say that there is a feeling of interest in the movements themselves, that is by no means the same thing as saying that the feeling of interest causes or determines the movements. We can see the difference in our own experience of reflex action. If a doctor tests our reflexes, we may be very keenly interested in the movements that we make, but it is obvious that we cannot say in any sense that our interest determines or causes the knee-jerks, which would occur just the same whether

we were interested or not. So that a "feeling of interest" may mean several different things, any one of which may be present without the others.

Perhaps as a representative instance of the views which assign the maximum amount of conscious accompaniment to instinctive action we may take the account given by Prof. Stout in the third edition of his *Manual of Psychology*. Any statement from such a source comes to us with particular weight and authority, and we are not likely to find an abler statement of the views in question anywhere else. It may, therefore, be worth while to give a somewhat detailed examination of the account there put forward.<sup>1</sup>

Prof. Stout is concerned to distinguish instinctive action sharply and definitely from reflex action, with which it is so often identified. "Reflex action," he writes (p. 343), "is of a nature fundamentally different from instinctive conduct. The difference is that instinctive conduct does and reflex action does not presuppose the co-operation of intelligent consciousness, including under this head interest, attention, variation of behaviour according as its results are satisfactory or unsatisfactory, and the power of learning by experience." This is clearly not a mere arbitrary statement of the kind of behaviour to which he proposes to apply the term "instinctive," for he asserts the presence of these elements in action to which the term "instinctive" would be applied by universal agreement, including instance of the behaviour of insects such as those described above.

The first difficulty that I find in this account lies in the distinction on which it is based between instinctive and reflex action. A good deal of the argument seems to me to be vitiated by being based on a comparison between an experience of reflex action in ourselves and instinctive action as shown, say, in insects. Because

<sup>1</sup> It is to be found in Book III., Chapter I. of the third edition of the *Manual*, and more especially in various passages on pages 343-357.

reflex action in ourselves is comparatively simple and limited, Prof. Stout seems to argue that the behaviour of insects, which does not display this simplicity and these limitations, must therefore be accompanied by conscious and intelligent processes which are not present in the case of reflex action. But that is surely to beg the question. For the point at issue is just this, whether it is not possible for reflex action, as we know it, to be developed in other species to a very much higher pitch of complication and elaboration.

Further, a good many of Prof. Stout's arguments about instinctive action would, it seems to me, apply with equal force to reflex action. In our own case reflex actions, of course, may be accompanied by a considerable amount of intelligent consciousness. And owing to the presence of this intelligent consciousness in us we may sometimes to some degree check, control or modify the reflex action. Thus we may suppress or partially suppress a sneeze or the blinking of our eyes at the feint of a blow. We say that the resultant action in such a case is not entirely reflex, but that part of it is intelligently controlled, thus still retaining the sharp distinction between what is due to the reflex and what is due to intelligence. But why should we not speak in the same way of instinctive action? The question is not whether animals which act instinctively may or may not sometimes modify their behaviour under the influence of intelligence. It is rather whether instinctive action is necessarily bound up with and determined by intelligence, whether it is from the beginning, as Prof. Stout says (p. 357), "essentially conditioned by intelligent consciousness." Prof. Stout's argument that subsequent modifications of behaviour by intelligence prove that the behaviour must have been determined by conscious intelligence from the beginning, would surely, then, apply with equal force to reflex action. For that also, as in the case of the suppressed sneeze, may be modified by

intelligence. And, so far as it is based on such considerations, the distinction between instinctive and reflex action seems to fall to the ground. And there seems so far no reason why we should not say of instinctive action, as we do of reflex action, that it is *qua* instinctive essentially different from and undetermined by intelligence, though in any particular case the behaviour, which would otherwise be purely instinctive, might be modified by intelligence.

But we must examine further the case for the influence of intelligence in behaviour which is usually regarded as instinctive. I may be unduly sceptical, but I confess that I am still not perfectly convinced by any of the evidence I have yet seen for the actual occurrence of intelligent action in insect behaviour. The great difficulty, I suppose, in assuming its presence is that, if it is there, its action seems extraordinarily fitful and erratic. Some of the very few alleged cases, if due to intelligence at all, seem to argue a relatively high development of that faculty. And yet in other cases which do not seem to call for any greater exercise of it, the same insect will fail so conspicuously to show the slightest signs of its presence. Of course, the same thing may strike us at first sight in the behaviour of certain human beings. But in such cases a very little inspection will probably show us some ground or principle of these limitations in the application of intelligence. But it is difficult to find any such intelligible principle in these instances of insect behaviour.

But apart from that the instances themselves seem to lack decisiveness. A good many of those which are commonly quoted do not seem to necessitate an ascription of them to intelligence at all. When a physical hindrance to the performance of the actual movements calls forth a response which did not show itself when the movement was unhindered, it seems just as natural to say that a difference in the stimulus produced a different reaction as to suppose an intelligent appreciation of the

situation. There is no difficulty that I can see in supposing some such kind of alternative mechanism in the animal's structure which could vary the action in response to a perceptible difference in the surrounding circumstances. Such a case would be that of Dr. Peckham's wasps who tried to drag into the burrow spiders which were too large and stuck in the entrance or half-way down, whereupon they brought the spider out and enlarged the burrow before taking it in again. The single instance which he reported where a wasp on one occasion enlarged the burrow before finding that the spider stuck in it is on a different footing. There, certainly, the most natural explanation of the action would be an intelligent appreciation of the situation. But such a case is almost unique. And there is this to be noted about it and the one or two other cases which stand on the same footing. So far as I know they are all isolated cases observed under natural conditions. I do not think that any such cases were found under experimentally controlled conditions, which seem to have given uniformly negative results. That, at any rate, is Fabre's conclusion.

In spite of these considerations, I would not demand of others that they share my scepticism. It may possibly be a personal reaction against an earlier tendency to anthropomorphize unduly the behaviour of animals. And it is certainly not in any way essential to my argument to maintain that insects never show any intelligent modification of behaviour. But I do maintain that a great deal if not most of their behaviour shows no signs of intelligence at all, and is, indeed, such that it is very difficult to suppose its presence or its influence.

We have not yet come face to face with the question, What do we mean by this intelligent consciousness about which we are arguing? How much do we include in it? Prof. Stout answers (p. 354) that the minimum that we must include in it is, "(1) attention selective and prospective, making possible the guidance

of motor activity by complex and variable groups of sensory data ; (2) appreciation of relative success and failure, making possible persistency with varied effort." Let us consider these points.

(1) Is all attention necessarily intelligent ? It seems to me difficult to apply the term to cases, for instance, of involuntary attention aroused by the intensity of the stimulus, such as a sudden bright light or loud explosion, or to the attention that we give to the stimulus of a reflex action, such as the blow aimed at our face which makes us flinch and blink our eyes. Strictly speaking, I should have thought that intelligence could only be asserted of attention which is due to some previous process of thought, and that it involved some kind of knowledge of what it was that we were looking for. But this is clearly not the case with the wasp who attends to the caterpillar the first time that she catches one as intensely as the last. I do not see any evidence that there is anything resembling our voluntary and conscious selective attention. The wasp does not know what she is looking for, and we do not even know that she is conscious of looking for anything. She may just as well feel simply impelled to fly about until a caterpillar crosses her field of vision, when the impulse to further action follows at once.

And what is her awareness of the caterpillar like ? What does it mean to her ? It seems to me that the caterpillar means to the wasp simply a certain action with regard to it and nothing more. It certainly cannot mean food for her offspring. And it seems equally evident that it does not even mean a well-stocked burrow with an egg on the top, or she would not regard both caterpillar and egg with such complete indifference as she did in Captain Hingston's experiment, when the burrow was broken open and the caterpillar and egg laid in full view outside the entrance. And, as this and similar experiments show, the caterpillar only means this action to her at a certain stage in the whole

instinctive process. At other stages it seems to mean nothing at all to her. As Fabre repeatedly points out, there seems no capacity in insects for going back over any stage in a process once completed and repairing damage or doing over again what has once been done. So that it seems natural to say that the action is not determined by the consciousness of the object but rather that it determines the consciousness, if indeed there is anything that we could call consciousness at all. For if the object simply means a certain action to the wasp and nothing more, I should even question whether we can properly speak of a conscious awareness of it at all. I would rather say that the attention is part of the action, and as such conditioned by the innate structure of the animal just as the rest of the action is, not that the attention causes or conditions the action.

(2) But it is the second of Prof. Stout's conditions which is the real crux of the question, the appreciation of relative success and failure, and the consequent power of varying effort. A good deal here obviously depends on the degree of qualification implied by the term "relative." It might so cut down the meaning of success and failure as to leave nothing but the consciousness of whether the action was proceeding smoothly unhindered by immediate physical obstruction. It is natural to believe that there is this amount of consciousness, though it would obviously be impossible either to prove or disprove it. But that by itself would hardly amount to intelligence. And Prof. Stout clearly means more than that. For he speaks (p. 351) of the animals being "continuously interested in the development of what is for them one and the same situation or course of events," and of their "trying again when a certain perceptible result is not attained."

If this were indisputably shown to be present, it might or might not be a proof of intelligence. But it seems to me that these are just the features which the

behaviour of insects under experimental conditions does not show. I should have thought that a "continuous interest in the development of the situation" involved at the very least a realization of the connexion between the different stages in the process and an interest in the preservation of the perceptible results already attained. But it is difficult to claim this either for Captain Hingston's wasp or for Fabre's Mason Bees, who went on filling their cells with honey after they had been visibly broken open. It might be said that the Mason Bees showed an interest in the process of building their cell until that task was completed, and then transferred this interest to the filling of them with honey. But what sort of "interest" can this be which is thus divided up into absolutely water-tight compartments, so that it can suddenly stop short at one point in a continuous process and, as it were, start afresh? For the process is obviously continuous and the latter stages are closely connected with the former. I find it difficult to believe in this continuous interest, and impossible to believe that there is any intelligent appreciation of the process as a whole. As for the "perceptible result," surely a spider's web would afford an illustration and a test case of this, if anything did. And yet in Captain Hingston's experiment, already referred to, the perceptible result was conspicuously not attained, and yet the spider seemed quite undisturbed by this. She only altered her behaviour when the cutting of the web went so far that her freedom of movement in the path marked out by her routine was checked. And this seems the characteristic of nearly all the reported cases of modification of behaviour: it only occurs when the actual physical movement is interfered with. And this makes it difficult to believe that in ordinary insect behaviour there is any interest or appreciation of a perceptible result beyond the actual action itself.

If the foregoing argument is correct, it follows that

a great deal of insect behaviour, at any rate, is not conditioned or caused by intelligent consciousness at all. It may, no doubt, give rise to consciousness, the consciousness of the movement itself, such as we experience ourselves in the case of reflex action. That can hardly be proved or disproved, because consciousness of this kind does not, of course, directly affect the movement itself, and therefore cannot be inferred from any characteristic of the movement. With regard to the consciousness of the stimulus object, the caterpillar which the wasp seizes, for instance, there may be consciousness of that, of a sort. But it does not rise to anything that we can call intelligent consciousness. And it does not seem absolutely necessary to suppose the presence of consciousness at all. The facts are equally consistent with the view that the physical action of the visible object on the sense-organ of the animal translates itself at once into the appropriate action, without the accompaniment of the psychological experience which we call awareness of the object in our own case. The one kind of consciousness which it does seem most natural to ascribe to the insect is a vague feeling of uneasiness and dissatisfaction when the action, once started, is checked or hindered by some physical obstruction. And it might be possible to work out a view on this basis, developing a hint of Bergson's, according to which consciousness would only arise when instinctive action failed to complete itself. But such a view would, of course, be pure hypothesis.

In the light of all these considerations, what are we to say about Dr. McDougall's view that the essential conscious accompaniment of instinctive action is emotion, each kind of instinctive action being correlated with a particular emotion? As thus simply stated, this view seems to me to have been too thoroughly riddled with criticism by writers like Mr. Shand, Dr. Rivers and others to be any longer accepted. Obviously, it would be very difficult to assign a special emotion to

each of the very complex kinds of action performed by insects. But even if we consider the higher animals the view is hard to maintain. It has often been pointed out that we find different emotions accompanying the same action and different actions accompanying the same emotion. But the criticisms of the view go deeper than this. For they raise the question whether actions and emotions necessarily accompany one another at all, and whether in many cases, at any rate, they do not appear as alternative and even mutually exclusive reactions to a particular situation. In our own experience, as Mr. Shand suggests, we find that the emotion of fear, for instance, is felt less intensely the more quickly we are able to meet the dangerous situation by action, and may even not be felt at all at the time. It is when we think of the situation afterwards, or, one may add, when we are prevented by physical circumstances from acting, that we feel fear. And Dr. Rivers suggests that a strong emotion of fear would rather hinder the performance of the instinctive actions of escape, especially if they demanded a series of difficult and delicately adjusted movements.

I cannot help feeling that there is possibly in this view a certain confusion between instinctive actions of the kind we are discussing and the bodily expression of emotion which we really feel as part of the emotion. These bodily expressions of emotion may perhaps be properly described as themselves instinctive: they certainly share many of the characteristics which we ascribe to instinctive actions. But instinctive action in the strict sense is almost certainly independent of emotion and need not be accompanied by it at all. And when we are speaking of these bodily expressions of emotion it is entirely misleading to speak of the emotion and the instinct as being correlated or connected, or to use any expression which implies that there are two different things with a relation between them. In cases of emotional expression, if we speak of instinct at all,

the emotion is the instinct. There are not three different things, the emotion, the instinct, and the action to which the instinct leads, but two only, the emotion and the action in which it expresses itself. In one of Dr. McDougall's instances—the emotion of fear and the instinct of flight—if flight follows immediately on fear as the expression of it and has that felt connexion with it that, for instance, the visceral sensations and the trembling of the body have, then the emotion of fear is the instinct of flight. But, as we have just seen, it seems probable in most cases that the instinctive action of flight is entirely independent of the emotion of fear.

The whole question of the emotions of animals is a difficult and interesting one. It is, of course, beyond question that many animals do feel emotion. But it is equally certain that in many situations where we should naturally ascribe emotion to them further investigation raises doubt. Is, for instance, the care that some insects display for their offspring accompanied by the tender emotion which we usually suppose to characterize the maternal relation? Prof. Washburn relates the story of a wasp feeding a wasp grub, who finally cut off one end of the grub and offered it to the other end to eat. As she truly says, it is difficult to suppose the presence of tender emotion towards the grub in the mind of the wasp. And cases not so far removed from this may be found even among higher mammals. What evidence are we to accept for the presence of emotion in any particular case? I would suggest very tentatively some such test as this: If all the visible actions of the animal can be explained as being part of or having some bearing on a whole course of action leading up to a result, then there is no evidence of the presence of emotion. If, on the other hand, in cases where we might reasonably expect emotion to be felt there are any actions which seem to play no part in such a definite course of action, these may be taken as possible expressions of emotion and therefore a sign of its

presence. Such would be the movement of a dog's tail, indicating affection or pleasure, and the similar movements of a cat's tail, indicating anger or excitement. Of course, the strength of such evidence becomes much greater when the expression of a suspected emotion in an animal resembles in some degree the expression of a similar emotion in human beings.

A whole flood of light is thrown on all these questions by the experiments on animals, such as those of Schrader, Goltz and Sherrington, on which Prof. Lloyd Morgan, in *Instinct and Experience*, bases his theory of instinct as the work of the sub-cortical centres. In these experiments it was found that animals from whom had been removed that part of the brain which is usually supposed to be the seat of consciousness and intelligence were yet capable of movements which were far more developed and complicated than anything that we should normally call mere reflex action. The decerebrate pigeon, for instance, could fly and avoid obstacles in doing so, could eat, could peck, clean its feathers and so on. And yet, as far as we can tell, it was, in Prof. Lloyd Morgan's words, "a mere unconscious automaton." Unless we are going to throw overboard the whole of the physiology of the brain, the conclusion seems inevitable that instinctive action is independent of any kind of consciousness, in the sense that it can take place equally well without it, and is not caused or conditioned by it in any way. This is, of course, in flat contradiction of the views that we have been considering, and takes us, indeed, very much further than our criticisms of these views have so far enabled us to go. And yet it is difficult to see how it is possible to avoid this conclusion, which takes us straight back to the old view that instinctive action is simply more complicated reflex action.

Finally, we may perhaps gain some light on the question by a consideration of our own experience of habitual actions, say, the adjustments of balance that we make in riding a bicycle, or various little bad habits,

like biting the nails, etc. Here we have actions, sometimes fairly complicated, which take place just as well, or perhaps better, when our interest or attention is concentrated on something else altogether. There is certainly no feeling of interest either in the actions themselves or the stimulus which leads to them. They are at the very margin of consciousness, and probably in some cases sink below the level of consciousness altogether. Certainly they are not, at the moment of action, caused or controlled or conditioned by consciousness in any way.

This is not a proof that instinctive actions are necessarily of the same nature, unless we adopt the view, to me untenable, that instinctive actions are historically derived from habitual actions. But it does afford an illustration of the kind of thing that our argument so far seems to show instinctive actions to be. And at least, if we find these characteristics in habitual actions, it does afford to us a sufficient refutation of those who say that it is impossible that instinctive actions should show similar characteristics.

If we adopt this conclusion, we shall clearly have to modify some of our ordinary modes of speech about Instinct. As applied to our test case of instinctive bodily action, Instinct must be thought of as a general characteristic of certain forms of behaviour. We may describe this characteristic biologically by its origin, *i.e.* by saying that it is inherited or innate, and by its results, and we can describe it physiologically in terms of the particular kind of bodily and nervous structure which conditions it. But if we are taking the strictly psychological point of view, and asking what is its connexion with conscious experience, we can only describe it negatively by asserting its independence of any form of this. Nor must we speak of Instinct being modified by intelligence or experience or habit. Such a way of speaking implies that the behaviour is affected by one or other of these factors, and yet still remains

instinctive. Whereas on our account just in so far as the behaviour is affected by these it loses its characteristic of being instinctive. Behaviour, of course, is modified by intelligence and experience. But it is a contradiction in terms to say that Instinct is. We must not on the other hand, say that an animal is necessarily unconscious because it acts instinctively. We can only say that, as far as the animal is acting instinctively, its action is not affected by the presence of consciousness. If the animal is endowed with consciousness, it will be conscious of the instinctive action as we are conscious of our reflex movements. The consciousness, that is to say, will be of the action and follow from it. There will also be some kind of immediate consciousness of the stimulus, but only as that which causes the action. There *may* be more consciousness than this, there may be, for instance, reflexion and intelligent interest. But if that ceases to be a mere onlooker and modifies the action, then the action so far ceases to be instinctive. And there *need* be no more consciousness than we have described. That is, assuming that the animal is endowed with consciousness. But the mere presence of instinctive actions does not by itself necessitate the belief in the presence of consciousness at all.

These are the characteristics of instinctive action. It is obvious that no other form of behaviour, no thought or feeling, for instance, can share in all these characteristics. A thought or feeling, being a form of consciousness, cannot be described as independent of consciousness. It might, however, be independent of other forms of consciousness, it might be due to an innate mental structure, it might be unaffected by previous experience or by foresight of any end. If we start, then, from instinctive action as the limiting case, we can see how far any of its characteristics are shared by other forms of behaviour, and then decide whether they approach near enough to it to have the term "instinctive" applied to them as well.



IS THE CONCEPTION OF THE UNCONSCIOUS  
OF VALUE IN PSYCHOLOGY?

IT is one of the chief claims put forward by the exponents of the so-called "new" Psychology that they have been the first to recognize seriously the importance of the Unconscious, and the necessity of assuming unconscious mind or unconscious mental processes to explain the mental occurrences that do take place. I propose here to ask whether this line of thought is really of value in Psychology. I do not intend to discuss whether it may or may not have a certain value as a provisional working hypothesis within certain limited fields, say, the applied science of Psychotherapy. The title confines us to a consideration of its value to Psychology, in the proper sense. Does it help us to understand more clearly what sort of thing the mind is, or what sort of thing the concrete human being is? Does it afford us a real explanation, an explanation that gives us real knowledge, of the mental processes of this human being? To these questions I find myself compelled to return a decisively negative answer, well aware that by doing so I shall at once write myself down as a hopeless obscurantist in the minds of many people. But I will try to give reasons within the limited space at my disposal why I am unable to discover any value in the hypothesis and why I maintain further that, as it is used by some modern writers, it leads us to a positively erroneous idea of the nature of the mind and of certain mental processes.

My first difficulty is one with which we are all

familiar. I repeat it here, without making the slightest claim to originality in it, because I cannot find that the exponents of the "new" Psychology have so far shown the slightest sign of realizing its seriousness or even its meaning.

We are told again and again that it is necessary to assume the existence of the Unconscious, of unconscious regions of the mind or of unconscious mental processes. But before we can do that, and still more before we can put forward this assumption as a real explanation of anything, we must at least have an intelligible idea of what sort of thing this is which we have got to assume. And it is here that the difficulties begin. The point has often been put. It is urged in the first place that the only evidence we have of anything in ourselves beyond bodily processes is our experience of our own conscious processes. And the only things which we can call "mind" or "mental" with any intelligible meaning are these conscious processes. Anything in us which is neither conscious nor physical is, therefore, something unknowable and indescribable, or indescribable except in purely negative terms. But if the Unconscious is thus merely a negative idea, something of which all that we can say is that it is not physical and not conscious, then it ceases to be anything which could be given as a real explanation. It is simply an X, an unknown cause. And to ascribe anything to it is simply a confession of ignorance.

This, of course, would not be admitted by the advocates of the claims of the Unconscious. And we find them, accordingly, continually speaking of the activities of the unconscious mind in exactly the same terms as of the activities of the conscious mind, so that we hear of unconscious desires, emotions, wishes, fears, or of unconscious thoughts or memories. These unconscious mental processes, as Dr. Ernest Jones tells us,<sup>1</sup> "present all the attributes of mental ones

<sup>1</sup> Papers on Psycho-Analysis, p. 121.

except that the subject is not aware of them." And consciousness thus becomes, he says, "merely one attribute of mentality, and not an indispensable one." I have searched in vain for a clear statement of what the other attributes of mentality are which these processes do possess. And when I reflect on what I mean by a wish or an emotion or a feeling I can only find that I know and think of them simply as different forms of consciousness. I cannot find any distinguishable element in these experiences which can be called consciousness and separated from the other elements, even in thought, so as to leave anything determinate behind. And to ask us to think of something which has all the characteristics of a wish or a feeling except that it is not conscious seems to me like asking us to think of something which has all the attributes of red or green, except that it is not a colour.

I believe that everybody really feels this difficulty, and the result is that many writers slip into a way of talking, and I believe at times of thinking, of the Unconscious as of another conscious person of exactly the same kind as the conscious personality that we know, which exists alongside it and every now and then affects it in some way or other, so that to explain an event by referring it to the Unconscious becomes just the same kind of explanation as to say that something was done by John Jones instead of by Tom Smith. But whatever the Unconscious is, it is not that. Or else we are invited to take refuge in spatial metaphors, to talk of different levels or regions of the mind, and to think of it, perhaps, as a box with a false bottom and a hidden receptacle underneath, which contains all sorts of objects. But this, like the other attempt to describe the unconscious mind, only ends by describing something else. And there is clearly something wrong with a conception of the mental which can only be described in metaphors drawn from the material.

These are purely general considerations. To come

to closer grips with the subject it is necessary to examine the considerations which are supposed to make it necessary to assume an Unconscious, and the kind of occurrences which are supposed to be explicable only on such an assumption. And in this connexion I should like to give a brief consideration to a typical case, the case of claustrophobia, of which we have such an admirable description by Dr. Rivers in one of the Appendices to his *Instinct and the Unconscious*. In this case, it will be recalled, an event took place in the early history of the patient which aroused in him acute fear at the time. The event was forgotten so completely that it could not be recalled by the ordinary method of remembering. But the emotion, or the tendency to the emotion, remained, and was aroused in the patient whenever he was in a situation similar to the original one in the respect that it was in an enclosed space.

Now how does Dr. Rivers describe what happens here? Note, in the first place, that he does not say as I should say, that the person is no longer conscious or aware of the past event. He says that the event itself, which he calls the experience, becomes unconscious. That is to say, he holds that the past event or experience continues to exist in the form or in the place which he calls the Unconscious. The evidence for this is (1) that the results produced by the event continued in the permanent form of Claustrophobia; (2) that by the methods of Psycho-Analysis the patient can be brought to remember what happened. But do either of these facts necessitate such an assumption? Or are they made any more intelligible by this way of talking? Let us consider them in turn.

(1) Confining ourselves to what is absolutely beyond doubt in the case, we can say firstly that the past event—of which, of course, the person was fully conscious at the time—is forgotten. And secondly, it is clear that the event produced such an effect on the nature or disposition of the patient that in the future he always

feels fear in enclosed spaces. This feeling, again, is not in any sense unconscious : the patient is, of course, only too conscious of it.

But what I want to know is why the effect which the event produced on the person should be described as if the original event somehow went on existing and working ? And I can see no reason for it at all. We do not think it necessary to talk like that in any other connexion. Many events in the physical world produce permanent results beyond themselves. But we do not, except in a very figurative way, speak of the event as continuing to exist or as going on happening somewhere. Nor, indeed, would it really be intelligible to do so. An event, whether in the physical world or in conscious experience, when it has once happened, is over and finished. It is not in any sense a thing in itself with a permanent existence, and a capacity for different kinds of action. When an event produces a result, the result is something other than itself, and cannot be described in terms which imply the continued existence of the event which caused the result.

In what terms, then, can we describe the result in a case like that which we are considering ? The actual result of which we can be quite certain is the appearance in the consciousness of the patient from time to time of a particular emotion in particular circumstances, in this case the emotion of fear in enclosed spaces. And from that we conclude naturally that there is something permanently there in the nature or characteristics of the person which leads to that feeling being aroused in these circumstances. That is to say, we suppose a certain permanent disposition or tendency to feel fear in enclosed spaces.

Dr. Rivers expresses some scorn of those who assume psychological dispositions, and declares that they are positing "purely hypothetical factors, when those open to direct observation fail them." This is a curious reproach from an advocate of the existence of

the Unconscious, which is, if anything is, a purely hypothetical factor and in no conceivable sense open to direct observation. But, in any case, it entirely misconceives the real meaning of the conception of dispositions or tendencies. To begin with, something of the kind is not a mere hypothesis, but a necessary assumption, and one universally made whenever, for instance, we speak of a man being bad-tempered without meaning necessarily that he is at that moment actually feeling anger. But it is also necessary to point out that, if we know what we are doing, we shall not make very exaggerated claims for the idea. We shall not, for instance, make the claims for it that are made for the idea of the Unconscious, nor put it forward as an explanation in the sense in which that idea is put forward. It says simply that if a human being, or, indeed, any other kind of being, behaves in a certain way (using "behave" in the widest sense) from time to time, there must be something there in the nature of that being which leads or predisposes him to that kind of behaviour under certain conditions. There must be a permanent, or relatively permanent, mental structure, to use Professor McDougall's phrase, which expresses itself in that particular kind of mental activity. But of what sort of thing this mental structure is we know nothing, apart from the particular kind of activity to which it leads. We can only speak of it or think of it as a tendency or disposition to this or that kind of activity. While mental function or mental activity we can only know or think of as some kind of conscious experience.

We cannot, perhaps, even say with any certainty whether this mental structure is really mental or physical. If we adopt the latter alternative, we should have to say that a certain kind of arrangement of the physical structure of the brain and body is all that is necessary to give rise to certain kinds of conscious experience in certain surrounding circumstances. Such

a view could certainly not be dismissed as untenable. It would, I take it, be held by Professor Alexander or by Dr. Bosanquet. It is implied in the remark of the latter, quoted with approval by the former: "It seems to me that the fertile point of view lies in taking some neuroses—not all—as only complete in themselves by passing into a degree of psychosis."<sup>1</sup> We might, on the other hand, feel obliged to maintain that there is something, a definite individual existent, there which we can call a mind, and which we believe to be made out of some stuff which is definitely not material, and which we can properly speak of as mental or psychical. In such a case we should have to suppose that this mind has certain determinate characteristics which in given circumstances will lead to a certain kind of conscious activity. On this view we could never, so far as we can see, hope to arrive at any kind of knowledge of what this permanent structure was like apart from the conscious activity to which it leads. Whereas if we adopt the former alternative we could, I suppose, ideally at least, look forward to an increase in our knowledge to a point at which we could know what kind of material pattern in our nervous system constituted the permanent tendency to this or that kind of behaviour.

If we adopt the physical view, it is sufficiently obvious that there is no need and no room for the Unconscious or unconscious mental processes. Explanation of anything that takes place in consciousness, which cannot be sufficiently accounted for by previous events in consciousness, can and must be looked for in physical processes. And this view cannot be dismissed lightly. If it is rejected, it can only be as a result of very careful consideration of very much wider questions than those which we are now discussing.

<sup>1</sup> [It is perhaps hardly necessary to explain, except by way of a reminder, that Bosanquet was not using the terms "psychosis" and "neurosis" in the specialized senses given them in modern psychiatry.]

As a methodological assumption it will work just as well as the hypothesis of unconscious mental processes. It is no doubt true that, at any rate in the present state of our knowledge, these physical processes are absolutely unknown to us and a pure assumption. But then so are the supposed unconscious mental processes. And there is this difference between them. We may not know anything about the physical processes in any particular case. But at least we have in general some idea of the sort of things that we are assuming. Whereas, if we postulate unconscious mental processes we have not even any idea of what kind of things they could be like. As suggested above, if we try to describe them we inevitably find ourselves using metaphors which deprive them of just those characteristics which we are most anxious to assert of them, and describing them as another set of conscious activities or as material occurrences in space.

The case is rather different if we believe in the existence of a mind as a separable or distinguishable entity. Here obviously we can, with proper precautions, speak of unconscious regions of the mind, indicating by that the mental structure as opposed to mental function, the permanent dispositions or tendencies in the mind which are not at the moment active, the bad temper of the man who is not angry at the moment. But these, of course, would be something very far short of the Unconscious of the "new" psychologists, which is or involves active mental processes.

But besides this, if we suppose a mind, we cannot refuse to admit the possibility of processes going on in that mind besides the conscious processes which we are aware of. This would be the real Unconscious. But, if we assert such processes, we can only describe them negatively by saying of them that they are processes in the mind which are not conscious. We can have no idea of what their positive characteristics

are, because they cannot be like anything of which we have any experience.

But is there really any necessity thus to erect an altar to the Unknown God? It is generally claimed that this necessity arises because we find events in consciousness which cannot be adequately explained by preceding events in consciousness. I am not perfectly convinced that the fact is as stated. In the case of Claustrophobia, for instance, so far as I can see, all that we know to be there and all that we need assume is, firstly, an event in consciousness and then the result which it produces, that is, a lasting effect on the mental structure of the patient in the form of a disposition or tendency to another kind of conscious experience, namely the emotion of fear in enclosed spaces. But this disposition or tendency only becomes active when, under the appropriate stimulus, the emotion is actually felt. I can see no ground for supposing that there is anything actually occurring, any active process, involving some kind of change or some series of events, going on in the mind outside consciousness altogether. Indeed, the facts seem to me to tell the other way, for the reason that the tendency apparently remains unchanged in character, producing similar results in similar circumstances, until the patient is cured by the production of an event which is definitely in his consciousness, *i.e.* the recollection of the original event and the realization of the connexion of that with the emotion. I would not, however, assert without much further investigation that all the supposed cases could be accounted for on these or similar lines. But even supposing that we are presented with a case in which it seems necessary to assume that some process actually has gone on over a period of time which was not, while it was going on, accessible to consciousness, are we necessarily bound to assume that this process is a mental one? If we believe, as everyone really does in practice, in the interaction of mind and body, the process may just as well be a physical

one. And the assumption has, as has been pointed out above, at least the advantage of intelligibility. It is only the dwindling band of stern and unbending psychophysical parallelists who will feel themselves obliged to assume that the process is mental in character. And even for them, it is necessary once more to insist, the assumption gives no information and makes nothing any clearer or more intelligible. It only has to be put in to preserve intact the metaphysical doctrine of parallelism.

(2) We come now to the second line of argument. That is the view that because an event in the past has been forgotten and can be recalled by certain methods we must, therefore, suppose that the event has been existing all the time in the unconscious regions of the mind. There is no doubt that the discovery of these particular methods of recalling forgotten events is a discovery of the greatest practical importance in the diagnosis and treatment of psycho-neuroses. But for the purposes of this discussion, and in general considered as throwing light on the fundamental problems of the nature of mind and experience, it does not appear that there is any difference in principle between these special cases and any other case of remembering. There are all possible degrees of difficulty in recalling different events, and many different methods by which we can do so. The discovery of one more method of particular efficacy in certain cases does not affect the general nature of the processes under discussion.

The question really resolves itself into this: When an event has taken place of which we were aware, and we remember that event afterwards by whatever method, does that mean that in any sense the event has continued to exist in any region of our mind all the time? I believe that in this connexion, as in so many others, a great deal of confusion arises from the use of that most dangerous word "experience." In reading Dr. Rivers's book, for instance, I find him constantly speaking of an

unconscious experience where I should speak of a forgotten past event, with the apparent implication that the whole event is in some way a mental occurrence.

With this we are obviously face to face with the great question of the relation of mind to its objects. In any act of knowing what is "in" the mind, or mental (for I can conceive of no meaning of the spatial metaphor "in" the mind, except that it is mental in character), and what is "outside" the mind or physical? This is, of course, one of the burning questions of modern Philosophy, and, obviously, I cannot discuss it here. But I mention it because it seems to me obvious that it is a question on which we must make up our minds before we can begin to think clearly in Psychology at all. For surely a science which attempts to describe in any way the nature of the mind or consciousness or the mental is bound to give a clear account of what is mental and what is not mental in such a typical event as an act of cognition. Unless we are clear about this we cannot possibly arrive at a clear idea of what kind of thing we believe the mind and mental processes to be. We cannot get out of it by dismissing the question as Metaphysics, just because its solution demands a considerable amount of effort and hard thinking.

If we take, as I do, a Realist view of these matters, it is obvious that it is impossible to accept any description of the "experience" as continuing to exist and to act in the mind. This way of thinking of an "experience" as a detached object working on its own in this way or that would have difficulties, I should imagine, for any school of thought. But the special objection of the Realist would clearly be to the failure to distinguish the object known from the knowing of it. This confusion is particularly easy in the case of memory. If we see a dog, it needs a considerable amount of training in certain schools of Philosophy for us to persuade ourselves that the dog is "in" our minds. But when we remember a dog that we had seen, as the

dog is not obviously "there," it is much easier for us to imagine that the poor animal has somehow fallen into the "well of memory" (or got shut up in the "storehouse"), and that we are now engaged in fishing him out. It is only when we drop spatial metaphors, and realize that a thing cannot be "in" the mind unless it is mental in character, that it becomes clear that a dog or any other object that is not mental when we see it certainly cannot entirely change its nature and become mental when we remember it. There are plenty of difficulties and obscurities in the nature of the process of remembering, on any theory. But I am perfectly sure that on no theory are any of these difficulties removed or lessened by supposing that the object or event remembered is in any sense "in" the mind.

I find this way of thinking constantly appearing in all attempts to describe the Unconscious, as when we are told by the Psycho-Analysts that the content of the Unconscious consists of repressed infantile experiences. No doubt, for their particular practical purposes, these metaphors may be harmless and even, up to a point, helpful. But when they are put forward as a serious account of the nature of the mind or mental processes they become, in my view, misleading and mischievous.

I have left myself no space for a detailed examination of any other case where it is supposed that we must assume unconscious mental processes. I think there are few of them to which some, at any rate, of the above considerations would not apply. But I cannot help being struck, in reading the accounts of these cases, by the slightness of the evidence that seems sometimes to be accepted that the mental process really is unconscious. After all, with all our tests, we have in the end to come for our final evidence for the presence or absence of anything in the consciousness of a person to the statements of the person himself. And we all know how easy it is to misdescribe what is really going

on in our own consciousness. This is so even with a perfectly honest attempt; and when we take into account what Jowett described as "the amount of good hard lying that goes on in the world," the statements of a neurotic patient do not seem a very certain foundation on which to build our conclusions. Nor, for the matter of that, are the statements of anybody else in all cases. We most of us at one time or another know what it is to have thoughts or feelings which we should be very loath to put into words. But they are none the less conscious for that. This is really a minor point. But apart from that, there are, of course, at any moment many things going on in our consciousness, just as there are many things in the outside world within our field of vision on which our attention is not focused. We do not, therefore, think about them; we do not recognize their implications or connect them up with the rest of our experience. And, therefore, we often do not remember that they were there even a few minutes afterwards. But once more they are certainly conscious processes at the time they take place.

These are, apparently, what Dr. Rivers calls "sub-conscious processes." At least, so I judge by his description of these latter as "processes which only differ from other mental processes in the lesser degree of distinctness and clearness with which they can be observed." And he criticizes those who speak of such processes as "failing to recognize that they were only evading a difficulty by clinging to a simulacrum of the conscious, the existence of which was just as hypothetical as any of the constructions of the thorough-going advocate of the Unconscious." Unless I entirely misunderstand this, it seems to me really an amazing statement. For it characterizes as purely hypothetical the familiar distinction between the focus and the margin of consciousness, which I should have called an obvious fact of experience which anyone of us could verify for himself with the utmost ease. If I am right, it is

clearly a fact of importance for the present discussion, because it means that there is always a certain number of conscious processes going on and a certain number of objects of which we are aware which we may not remember at a later time. This makes it impossible to say with any certainty that conscious processes at one time cannot be adequately explained by previous processes which were just as conscious, because we can never be sure what previous processes did actually occur. We can never assert positively that the explanation of anything must be looked for in something outside the "stream of consciousness" altogether, because we never have exhaustive knowledge of all that is or has been in the "stream of consciousness." And if this is true it certainly weakens seriously the alleged necessity of assuming unconscious mental processes as an explanation.

This, then, is a very brief and inadequate outline of my case against the idea of the Unconscious or of Unconscious mental processes. I cannot accept it because I cannot attach any meaning to it and cannot see any necessity for it. Further, in the modern form, it seems to me to mix up many things or many problems which ought to be kept separate; to confuse, for instance, the problem of the nature of mental dispositions with that of the nature of the act of memory. And I believe that it, at any rate in this form, implies a false view of the nature of mind, of the relation of mind and body, and of the relation of the knower and the known in an act of cognition.

## NOTE ON STUDIES TWO, THREE AND FOUR.

These three essays are the earliest in the collection, and it may be worth while considering for a moment how they read now. Undoubtedly they "date" a little. But I think it may be fairly claimed, at any rate for the first two, that this is because their general contentions have been so largely accepted. No one, probably, would write a book like Dr. Trotter's now. That we should always aim at talking as far as possible in terms of actual events, which can be observed, that adjectives, like "instinctive," are more reliable tools than abstract nouns, like "Instinct,"—these principles of method are widely accepted in contemporary psychological writing. One distinguished psychologist has even suggested the abandonment of the term "instinctive," and the use of "learned" and "unlearned" as the most appropriate adjectives, and I have often found in teaching that this conduces to clearness of thought, though it has its limitations.

It is possible, indeed, that the reaction against Instinct has been carried too far. If I were writing now I think I should spend more time in explaining how "Instinct" and even "the instincts" can be profitably used than in warning readers against the misuse of them. At any rate, I do not think we have arrived at a position where we can abandon the use of the notions of mental tendencies and mental structure.

I am not sure how far the second paper would be regarded as requiring modifications in detail in view of later investigations into animal behaviour. But the statement of general principles, which is the important thing about it, remains unaffected.

With the Unconscious the case is rather different. On the one hand, the position represented in my paper has been further developed, and a much closer and more subtle analysis of the elements involved has been made by writers such as Professor Laird and Professor Broad. On the other, it would be impossible to claim that there has been any general abandonment of the notion of the Unconscious, which still makes its appearance in much writing as one of the great discoveries of modern Psychology. Yet I cannot find any serious attempt to answer the criticisms of the notion put forward.

It is important to assert that the criticisms of the Unconscious in the preceding paper are based on essentially the same point of view as the criticisms of the use of the notion of Instinct. And that point of view may be generally described as the attempt to apply, as far as possible, to Psychology the accepted principle of modern physical science that only observable factors should be regarded as causally connected. I admit that it is probably not possible to apply this principle all the way in Psychology. But it is a sound tendency always to be suspicious of explanations in which it is not applied. It seems to me beyond a doubt that with, at any rate, some writers who have used the term, the Unconscious has been a standing temptation to rest content with a very inadequate search for conscious elements and to fall into all sorts of speculative imaginings which cannot be checked by observations. It has, in fact, at times taken the place of the "occult qualities" against which Newton protested.

There seems, however, to be a perceptible modification of the attitude towards the Unconscious even among those who continue to use the term. The fashionable view of the moment seems to be that the Unconscious is merely a convenient concept, or even a name, for grouping together certain observed phenomena. I cannot feel convinced that this notion of convenient concepts has been fully worked out,

even in the physical sciences, and certainly to call anything a concept does not automatically put it beyond the reach of criticism. Such criticisms would doubtless take rather a different form from that of my paper. But at the time this was written the Unconscious was certainly not used in that way. No one who listened to the discussion which followed the paper could seriously doubt that the champions of the Unconscious were intending to assert the actual occurrence of definite events of a certain character. So it is possible that this and similar criticisms have not been entirely without effect.

I would call attention, in conclusion, to the passage in my paper in which I explain that my arguments were not intended to rule out the use of the notion in a certain limited field of research, if it was really found helpful there. But there are signs at the present time that even in that field it is not being found so helpful as was once thought. I note with interest that in two recent works by very successful practising psychiatrists the Unconscious is hardly mentioned except in the historical passages dealing with Freud's theories.



ANCIENT PHILOSOPHY AND MODERN  
SCIENCE

IN what follows I have attempted to summarize what appear to me to be some of the most important results of recent work in the philosophy and history of science, and to show their bearing on certain problems which arise and certain views which are commonly held. I cannot pretend to claim any originality for what I have to say ; indeed, it is only my own in the sense that I have been convinced by the arguments of those other thinkers, largely, I may say, because they confirmed, with their much wider foundation of knowledge and their more systematic demonstration, certain suggestions which had long been working in my own mind.

The problems on which these investigations throw such light are those which concern the general nature of scientific thought, and in particular its relation to philosophy. Or, if we look at the matter from the historical point of view, there are questions to be answered such as : What is the new feature which appears when modern science begins ? Or again : What, if anything, is the bearing of the philosophic speculations of ancient Greece on the development of modern science ? There are many people who still maintain the view that science consists essentially in the patient observation of facts, including, of course, the specially valuable observation of facts under controlled conditions which we call experiment. And modern science begins, we are told, when people begin to look at the facts for themselves instead of accepting them on

authority or trying to reason out what they ought to be without going to look what they really are. Thus, for instance, we are told, Galileo showed the essential originality of his point of view by refusing to accept the statement made on the authority of Aristotle that a heavier body would fall to the ground quicker than a light one, and by trying what really happened for himself. Only the other day, again, I saw in an important literary journal a review of a book on Psychology, in which the reviewer said that the reason why Psychology had made so little progress in comparison with the physical sciences was that it had for so long maintained its hampering connexion with metaphysics and had not confined itself to patient examination of the facts without philosophical preconceptions. The same point of view appears in the essays on the development of Greek medicine by the editor of the Loeb *Hippocrates*. Throughout in his treatment of the subject philosophy appears as the enemy of scientific study of the facts, as the great hindrance in the way of the development of science. And this view is hardly to be wondered at considering that his notion of a philosophic hypothesis is that it is "a generalization framed with a view to unification rather than to accounting for all the facts; it is a foundation for an unsubstantial superstructure; no efforts are made to test it by appeals to experience, but its main support is a credulous faith."

The general point of view of the nature of science which is thus expressed has long been an object of suspicion to philosophers. They have, however, lacked in general the detailed knowledge of the methods and results of the natural sciences which would be required to justify this suspicion. But all the recent work by philosophers who were also qualified by their knowledge of science has gone to show that this suspicion was fully justified. To mention only a few names in this connexion, I would single out first and foremost the

work of M. Emile Meyerson in France. In England the same result emerges from the writings of a distinguished member of this Society, Professor Leonard Russell; and Professor E. A. Burt's recent work on *The Metaphysical Foundations of Modern Science* demonstrates the same theory by a more strictly historical treatment.

From this and other similar work certain general conclusions appear to emerge clearly. Summarizing them roughly, one may say that, of course, careful observation of the facts is essential at all stages of scientific investigation, and that science would not advance at all by any other method. But, on the other hand, it appears equally clearly that really scientific investigation could never have got started by simple observation of the facts alone, even when aided by experimental methods. Scientific thought starts and is sustained throughout by the adoption of certain ideals of explanation, certain "demands," as Professor Russell calls them. Scientific thought requires, in order to set it going, the acceptance of some theory of what explanation means, of what we are to set out to look for, and of what the lines are on which we are to demand that the answers to our questions should be given. These demands or ideals of explanation are not in the first place suggested by mere observation of the facts to be explained, though they may be verified or possibly modified in the later stages by such observation. But it does not suggest them in the first place, and, indeed, it appears that too close and rigid an adherence to the observed facts would rather have hindered the adoption of those ideals of explanation from which science starts. In other words, the adoption of a certain philosophic view was a necessary preliminary to the start of modern science. And the supposed hindrance that philosophy imposed in the way of this start turns out on investigation to have been only the hindrance imposed by the adoption of one particular philosophic view. This hindrance

was removed not by the abandonment of philosophy altogether—none of the earlier scientists were ever ashamed of calling themselves philosophers—but by the definite and explicit adoption of another philosophic view as the starting-point of scientific investigation.

To demonstrate this in detail would be a long task. But a few instances may serve to illustrate, if not to prove, my point. Let us consider first the case of the Copernican system. No doubt to the modern astronomer the system as formulated by Copernicus would appear only one stage less antiquated than the system of Ptolemy. But I think that it would be universally recognized that the acceptance of the Copernican system made one of the turning-points in the development of science, and, indeed, might be regarded from some points of view as the starting-point of modern science. Yet how did this revolution come about? Certainly not simply by patient observation of the facts. Such observation by itself could hardly lead anyone to deny such an obvious fact, which anyone could observe for themselves, as that the sun went round the earth. We may recall the retort of La Trémouille in *St. Joan* when he hears of the ancient sage who believed that the earth went round the sun, "What a fool! Couldn't he use his eyes?"

The fact was, of course, that the Copernican hypothesis was adopted because it enabled the movements of the heavenly bodies to be expressed in the simplest possible mathematical formula. But there was nothing in the facts themselves and the mere observation of them which would suggest that the simplest explanation was necessarily to be adopted as the true one. It was the demand, the ideal of explanation which was the motive power behind the acceptance of this hypothesis, and the facts were made to conform to that. We know, indeed, that for some time it looked as if they would refuse to conform: in the imperfect state of observations at the time the facts appeared to disagree

with Copernicus's calculations. There is a well-known passage in Galileo's *Two Great Systems*, in which he expresses his admiration for the faith in reason which made Copernicus hold fast to his view, in spite of its apparent discrepancies with the facts, until more accurate observations at last confirmed it. It is, he says, the great claim to renown of Copernicus "that he did constantly continue to affirm (being persuaded thereto by reason) that which sensible experiments seemed to contradict."

Another instance of this "rape of reason upon the senses"—to use Galileo's phrase—is to be found in the development of the atomic theory. We are still often told by the historians of science that the atomic theory of its first founders among the Greeks was a mere guess devoid of scientific value, and that atomism as a serious scientific theory owes its origin to John Dalton. But it is no disparagement of Dalton's great achievements to point out that he took over the notion that matter was composed of atoms as an already universally accepted belief,<sup>1</sup> and that there is no particular reason to suppose that he could have arrived at it independently if it had not already been familiar to him. The theory came to be more and more firmly accepted because every advance in scientific knowledge seemed to confirm it, and Dalton's work represented one of the greatest steps in advance in the process of rendering it capable of application and verification. But this should not make us blind to the great achievement involved in first conceiving of it. It is so familiar to us nowadays as a theory that we are apt to find it difficult to realize what a tremendous effort of mind must have been required to conceive of such an idea as this. It is obvious, if we reflect for a moment, that observation of the facts could never have suggested it in the first place. It must have

<sup>1</sup> He refers to it at the beginning of his book as "the conclusion which seems universally adopted." It was, of course, perfectly familiar to Galileo, Boyle and Newton.

seemed, rather, to contradict absolutely the obvious facts that we could see around us. On the other hand, to speak of it as a mere guess of no scientific value would be the height of superficiality. Theories at once so revolutionary and so pregnant with future possibilities are not arrived at by mere guesswork. And, in fact, this theory was arrived at because it seemed the best adapted of any theory to fulfil the demands which several generations of philosophical reflection had formulated.

What, then, were the demands or the ideals of explanation, the formulation of which gave rise to the development of modern science? It appears to me that, in regard to this, there was something which appeared or re-appeared in the period that saw the rise of modern science—a period which we may place roughly within the limits of a century and a half from the time of Copernicus—and which was not to be found in the centuries that preceded it. But it appears equally clear that the novelty does not consist in the demand for the use of the methods of observation and experiment. No doubt there was an increased interest in the application and results of this method, and an increased interest in the kind of facts to which they could be applied. But a more careful investigation of the facts—such as is given, for instance, by M. Duhem in his *Études sur Leonard de Vinci*—will show that there was no lack of observation, and, indeed, of experiment in the centuries which preceded this period. The fact is that we have been often inclined to take too seriously the sarcasms of Galileo at the expense of his opponents, and to accept the amusing and possibly exaggerated stories that he tells of their stupidity as typical of a whole period. But in reality readiness to accept things on the authority of others, and unwillingness to open our minds to unaccustomed ideas, are not the monopoly of any one period. These phenomena occur in modern times, just as the opposite qualities of mind are to be found in

the Middle Ages. If we are looking for an element of novelty in thought we must look in a different direction from this.

If we are to single out one feature which is most characteristic of the work of these founders of modern science, we should probably choose the constant repetition of the demand that rational explanation should be given in precise numerical or mathematical terms. It needs no demonstration that explanation in such terms is the ideal of modern science. "Science is measurement," as one modern scientist has said; and the explicit statement of this point of view appears to be the clearest novelty which distinguishes the work of sixteenth and seventeenth-century scientists from that of their immediate predecessors. No mediæval scientist or philosopher, so far as I can discover, ever arrived at such a conclusion. Even Roger Bacon, who speaks of the value of a mathematical expression of scientific facts, does not seem to adopt this as a single guiding principle.

We get the fullest statement of it as a developed philosophic doctrine in the works of Descartes, whom M. Meyerson calls the legislator of modern science. But well before his time we find it explicitly adopted by other writers. Galileo states it as his view more than once. And he makes it clear that his adoption of this view was one of the chief points of difference between him and his opponents. The champion of the peripatetic philosophy in the *Dialogue on the Two Great Systems* is represented as quoting against the new views the reproach of Aristotle against Plato, that he reduced philosophy to mathematics. And the counter-charge of undue neglect of mathematics is brought against the Aristotelians by the mouthpiece of Galileo's own views. But the most complete statement of this point of view before Descartes is to be found in the works of Kepler. Numbers or the objects of mathematics generally are, in his view, the archetypes of the created world: in

that sense he speaks of them as *causas naturalium*. And, as the human mind is created to enable man to understand nature, number or quantity is its proper object. It seems, he says, by the law of creation, unable to know anything fully except quantities or whatever can be known by means of quantities. He, too, is quite clear that this is one of his main grounds of difference from the dominant Aristotelian philosophy. It is true that in a later mathematical work he suggests that Aristotle himself was really hinting at the view that the category of quantity was in a superior position to all the other categories.<sup>1</sup> But in other passages he describes the general point of view as the opinion "*quod Aristoteles tot locis vellicavit.*" And he goes on to connect this difference of opinion with Aristotle's lack of true religious knowledge and his disbelief in a creation of the world.

Now Professor Burt is surely completely right in arguing that this point of view could not be suggested by mere observation of the physical facts themselves. Such observation could not at this period have suggested that every phenomenon was capable of precise numerical measurement and expression in mathematical terms. The assumption was verified over an ever-widening field by successive generations of investigation. But we cannot say that even yet it has been completely verified. Still less could observation of the facts by itself tell us that the quantitative and measurable aspect of phenomena was any more important or fundamental or real than the other aspects, which were equally facts given by observation. It was an ideal of explanation, a demand of the reason which led investigators to concentrate on this point, whatever observation by the senses might suggest. That is why we find Galileo, and still more often Kepler, proclaiming the importance

<sup>1</sup> There appears to be a slight error on this point in Professor Burt's admirable account of Kepler's views.

of the reason and its right to sit in judgement on and revise the deliverances of the senses. It is true that we can also find passages in both which emphasize the importance of using and trusting in our senses. But the apparent contradiction is easily resolvable if we see the difference in the occasions on which the two points of view were urged. A belief in the importance of reason and reasoning is not incompatible with a full realization of the fact that there are some points on which reasoning without observation by the senses could not give us information. It would need reason to tell us that the quantitative and measurable aspect of nature was the only aspect which was fully intelligible to us. But to know what the exact measurable quantity was of any particular thing we should need to measure it and see the result. From this point of view we might describe the essential service of these scientific philosophers as the delimitation of the proper fields of the two.

Is this demand for a mathematical explanation the fundamental fact about scientific thought? I do not think so. For its fulfilment depends in its turn on the fulfilment of another demand, which goes much deeper and covers also a wider field. It is clearly only possible to reduce a series of phenomena to mathematical terms when you have discovered at least so much identity in them that they can be expressed by the same formulæ and measured by the same standards. In other words, to arrive at a scientific explanation you must begin by reducing qualitative heterogeneity to qualitative homogeneity, with only quantitative differences. But, as the development of scientific theory shows, even differences of quantity are not ultimately satisfying to the demands of the reason, and search is made for some underlying reality, which is not only the same in kind everywhere but which does not either increase or diminish in amount. As M. Meyerson points out, the characteristic result of a scientific investigation is

expressed in the form of an equation. It is, in the main, the work of this author which has shown in recent times how the development of science rests on the acceptance of what appears to be a deep-rooted conviction of the human reason, that a rational explanation of phenomena has been reached in so far as apparent differences are discovered to be reducible to a real identity. He calls attention, for instance, to the way in which our demand for a rational explanation seems to be satisfied when we discover that an apparently new fact was really there all the time, when, that is to say, we reduce the apparent difference between what was there at one moment and what was there at another to a real identity. But it is unnecessary to repeat the impressive argument in which he develops and, in my opinion, establishes his position.

The general result, then, seems to emerge that science has progressed so far along its present lines because it was originally set on these lines by speculation of a kind which can only be called philosophical. The modern scientist can afford, throughout the greater part of his work at any rate, to neglect speculations of this kind only because the work has already been done for him by previous generations. It was they who laid down the ideal of explanation, and who made it clear what the scientist must aim at finding, if he is to be able to say that he understands and has explained the facts. He can never confine himself to mere passive acceptance of observable facts: he has to try to reduce them to something else until they have fulfilled his ideal of explanation. I remember hearing a scientific colleague of my own say, with only slight exaggeration, "Patient observation of the facts, indeed! We should never get anywhere by that. We have to tell the facts what they've got to be, and then go on working at them until we find they really are like that."

By whom, then, were these philosophical pre-suppositions of science worked out in the first place?

Full credit must be given to Galileo, Kepler, Descartes, and other contemporaries of theirs. But, be it noted, they themselves were only too ready to recognize that they were building on foundations already laid by earlier thinkers still, and we constantly find the first two, at any rate, speaking of their own philosophy by the name of the ancient school of philosophers from which they derived it. They appear anxious to proclaim the fact that their fundamental views in these matters were suggested to them by Plato or by what they know of the Pythagoreans. It is clear that the idea of mathematical statement as the ideal of explanation came to them in the first place from those sources. It is the same with most of the other fundamental ideas which influenced the development of science at this period. We know that Copernicus was first set on the track of his system by learning that Aristarchus and other Greek thinkers had suggested that the sun should be taken as the central point rather than the earth. And the atomic theory was avowedly taken over from its first founders, either directly or through the medium of Epicurus and Lucretius. Whether any of the scientists or philosophers of this period could have thought out these theories by themselves we simply cannot say. But what is obvious is that they did not in fact do so, and made no claim to have done so.

The realization of these facts ought to save us from any danger of underestimating the contribution of the Greek philosophers to the development of modern science. And yet, it must be admitted, that the case for them is still too often mis-stated. Thus, when they are criticized for their inadequate appreciation of the importance of observation and experiment, we are accustomed to hear it urged in reply that they probably used experiment more than appears at first sight from what we know of their work. And this is quite true. Certainly they were keen observers, and, even in the fragments that we have, we find the appeal to various

thoroughly sound bits of observation in support of their views. Yet, even so, it remains true that the centre of their interest, as far as we can judge, was not in what could be discovered by means of these methods. But is this necessarily to be counted against them? Not if we recognize the importance of establishing an accepted notion of what scientific explanation means, and realize the contributions they made by exploring the possibilities in this direction.

These considerations enable us also to give an answer to the question, What was the new element which came into thought when Greek philosophy began with Thales and the Milesian school? Different historians of philosophy have given different answers to this question. But from our point of view the answer is not difficult. What was new, what distinguished them, for instance, from the Babylonian astronomers, was that they did not remain content with simple observation of the facts, but that they demanded an explanation, and that they saw that this explanation must be given in particular terms, which were not suggested by the facts as they were observed. They first arrived at the idea, which as we have seen is implicitly or explicitly at the basis of scientific thought, that the phenomena of nature are to be explained by reducing their apparent differences to an underlying identity. The actual descriptions they gave of what the underlying identity was need not concern us now. They have, of course, no longer any value, though they were undoubtedly based upon real observations and real arguments, which made them, in the state of knowledge of the time, not wholly unreasonable. At any rate, they were very far from being the mere guesses which they are still sometimes called. But the real service of these thinkers, their great step in advance, lay in their ability so far to criticize the deliverances of their senses that they refused to accept the obvious facts at their face value, but demanded that some identical element

should be found to which they could be reduced. This was indeed a "rape of reason upon the senses" which must have needed an extraordinary mental effort on the part of these thinkers. Without it, the development of any science would have been impossible.

It would be out of place here to go through the history of Greek philosophy and science from this point of view. One or two special points may be emphasized. It needs no demonstration that the work of Thales and the Milesians was of this nature. But what does perhaps need pointing out is that the work of Pythagoras and the philosophy of numbers is also a special development of this point of view. It is not, as it is sometimes represented, an alternative line of speculation, but an offshoot from the same main branch. The doctrine that things are numbers is but a slightly exaggerated form of the modern scientific theory that the essential fact about the series of phenomena is that in it which can be measured and expressed in mathematical terms. And this, as we have seen, depends for its possibility upon there being so much identity in the different phenomena that they can be expressed by the same kind of formulæ. Indeed, it is a natural step from the belief that all the apparently different things are really made of the same underlying reality to the view that their differences must therefore be due to differences in quantity of the same stuff, that these differences in quantity should, then, be measurable, and that the result of this measurement and its numerical expression is the essential fact about all these things.

We do not know how far Thales and his successors made explicit and defended the underlying assumption of their theories. The first explicit and unmistakable assertion of this underlying assumption as a guiding principle that we find is in the writings of Parmenides. There are two main points that can be singled out as of special importance for our present discussion in what we know of the system of Parmenides. One is his

explicit adoption of the principle that what we are to adopt as true must satisfy the demands of the reason. The test of truth and reality is not what appears to the senses, but what can be completely thought out. "It is the same thing that can be thought and that can be." It was this aspect of his thought, no doubt, which is responsible for the profound admiration that he awakened in the mind of Plato, who in other connections was one of his acutest critics. The παντελὴς ὄν, παντελὴς γινώσκον of Plato is really a re-statement of the guiding principle of Parmenides' doctrine. And the whole side of scientific thoughts which insists on the demand for a rational explanation and refuses to accept the deliverance of the senses as mere brute fact goes back to this.

The other point in Parmenides' philosophy is, perhaps, more obvious and familiar, and that is his insistence that what is really intelligible is identity. For the demonstration of the importance of this idea in modern science I must refer once more to M. Meyerson. He quotes Leibniz as the first thinker who clearly stated this principle. But this seems to do injustice to the prior claim of Parmenides. Subsequent Greek thought on these matters, as Professor Burnet has shown, all took as its starting-point the work of Parmenides and his followers. In particular we may note Professor Burnet's demonstration of the close relation of the atomic theory of Leucippus and Democritus to the doctrine of the Eleatics. Something has already been said of the intellectual achievement involved in the conception of such a theory at a time when it could not possibly be an object of proof by sensible observation or experiment. And it must be taken as established that the work of the Greek atomists is directly responsible for the genesis of modern atomic theories, widely though these have diverged from their original. It is not unfair to say that without Parmenides there would have been no Democritus, and without Democritus no

Dalton. This is only one illustration of the profound influence of Parmenides on the development of modern science.<sup>1</sup>

All that has been said hitherto is no more than an outline of the results which the historical and philosophical investigations of many thinkers seem to me to have established. I would sum them up thus. It appears to be an historical fact that modern science got started on the only path along which progress was really possible by the definite adoption of certain theories about the meaning and nature of scientific explanation in general—theories which could not have been derived in the first place from observation of the facts that had to be explained, though the progress of observation and experiment has more and more verified their applicability. These theories were in part developed by the thinkers of the sixteenth and seventeenth centuries; but the greater share of the credit for them must be given to the philosophers of ancient Greece. It was only after these philosophical theories had been fully worked out that the work of applying them in detail to the facts by the methods of observation and experiment could be fruitfully undertaken. And we may conjecture that there were certain advantages for the progress of science in the fact that so many generations devoted their main energies to the working out of the philosophical

<sup>1</sup> I do not think that it is fanciful to find another trace of the close coincidence between the line of thought of the Eleatics—in this case represented by their successors, the Megarians—and that of modern scientific thought, in the denial by the former of potentiality in Aristotle's sense (see Aristotle, *Metaphysics* 1046, b. 29). It is certainly characteristic of scientific thought to refuse to accept the statement of a potentiality or tendency as an explanation of anything, and to demand that the explanation shall be given in terms of something which actually happens. The passage from popular to scientific explanation clearly shows this feature. And it can also be detected within the progress of the latter, as, for instance, in the point of view which would reduce so-called potential energy to the kinetic energy of some concealed part of the system. As Sir J. J. Thomson said many years ago, in referring to this view: "Potential energy cannot be said, in the exact sense of the term, to explain anything."

preliminaries before the work of scientific investigation, in the narrower sense, began.

As I approach the end of this paper the problems raised seem to become of more fundamental interest. I have so far confined myself to showing the effect on practice of the adoption of a particular philosophical standpoint in the development of scientific thought ; but I have not raised any of the more difficult questions which these results suggest. I can only mention them here, though in one sense the main object of my paper is to lead up to them.

If it is true, as I have maintained, that these demands or ideals of explanation do not in the first place come from observation of the facts to be explained, where do they come from ? I have spoken of them in places as the demands of the reason ; but that is only to give them a name. The comparatively simple explanation in terms of the current theology that appealed to Galileo or Kepler would hardly satisfy us now. Nor is it a satisfactory answer to say that they are known *a priori*, except in so far as this, too, amounts to no more than giving them a name. At any rate, they have little resemblance to what Kant, for instance, meant by *a priori* knowledge. They are in no sense necessities of thought, nor can they be said to be involved in all experience. On the contrary, they await verification by experience. Professor Russell, in a recent paper to this Society, has even suggested that they are modified by subsequent experience. And, on the face of it, this is clearly true, though I would suggest the possibility that these modifications are largely, at any rate, in the form of expression, and that there has always been an underlying identity in all the different forms in which they appear. Would it be a satisfactory account to say that they were the expression of the Absolute in human reason, and that they are verified in observation because it is the same Absolute that expresses itself in the facts of physical nature ? Or will they turn out, after all, to

be the results of observation, but observation of a different set of facts, namely, the pervasive characteristics, which Professor Alexander would call "categorical," that are present in all reality? I leave these questions to subsequent investigation.

Closely bound up with these questions would be a further set of questions about the truth or validity of these demands or ideals of explanation. That they are verified to a surprising extent in the subsequent progress of scientific investigation is obvious. But it is equally clear that to arrive at the verification in many cases science has simply to leave out of account certain groups of facts to which these demands do not seem to apply. The question becomes urgent when we ask how far these ideals of explanation, which have been so successful in physical science, can be or should be applied to other branches of knowledge. It is clear that they were worked out in the first place in relation to the material world, and that their verification has been most complete in the sphere of Mechanics and Physics. It is permissible, therefore, to raise doubts about the extent to which they can or should be applied, for instance, to the investigation of vital phenomena. That they have been applied in this field, and with some success, cannot be denied. Professor Haldane has stated that periods of mechanism in Biology have always been periods of progress, while periods of vitalism have been periods of stagnation. I suggest that one reason, at any rate, for this is that in investigating biological facts on a mechanistic assumption scientists have been following an ideal of explanation which has been relatively clearly conceived and formulated, while no such ideal of explanation has been worked out for those vital phenomena, if any, which elude explanation by these methods.

The problem that I find the most interesting of all is the legitimacy of applying these ideals of explanation to the study of the human mind. There is no doubt

that many of the advocates of the different forms of psychological study have been more or less consciously aiming in this direction. It is particularly clear in the case of those who advocate the methods of laboratory experiment and measurement as the proper means of pursuing psychological study. But it also comes out in the adoption of Psycho-Physical Parallelism as the proper pre-supposition of psychology. Parallelism depends for its strength upon the assumption, which has already been discussed, that a series of phenomena can only be understood or explained in so far as they are reducible to an identity, at any rate of quality. That is why it seemed impossible to give a physical fact as the explanation of a mental fact or *vice versa*. As far as observation goes, there is no warrant for this assumption. It has more than once been pointed out that if we really adopted Mill's doctrine of Induction and regarded causation as merely the invariable sequence that we observed, there would not even be any meaning in raising the question whether a physical event could be thought of as the cause of a mental event.

The adoption of this ideal of explanation has verified itself by its success in the field of physical science. But the same claim could hardly be made for it in the study of the mind. Nor have we any justification for assuming that the ideal of explanation which has been successful in one field must, or can be, made to apply to another. What the analogy of the physical sciences does suggest is that a branch of study like Psychology is only likely to make real substantial progress if we start with a clearly worked-out notion of what our ideal of explanation is. It would suggest that the statement quoted early in this paper about the reason for the comparative lack of progress in Psychology is the very reverse of the truth, and that the chief reason for this lack of progress is that we have rushed too hastily into the work of observation of facts without making up our minds what we are looking for, and what will

satisfy us when we find it. So far from Philosophy being a hindrance to the development of Psychology, the real hindrance comes from the lack of Philosophy. And if I were to find a title which expressed what is to me the chief moral of this paper, I should probably call it *Prolegomena to a Plea for a Philosophy of Psychology*.

1926.

NOTE.—I should like to add a word on the relation of the above argument to the current view, which is closely bound up with the profession of a particular political creed, that the development of science is to be explained in terms of social and economic conditions. I do not doubt that there are many facts of interest to be discovered in this connexion, even though I cannot accept the extreme claims of the advocates of this form of explanation. But the important point is that such an explanation would supplement rather than correct the argument of this paper. That argument is that the working out and adoption of the philosophical view outlined was an essential step in the development of modern science. It does not prejudice the question how far the adoption of this view may have been caused or facilitated by social and economic influences.



## SOME MODERN PROOFS OF THE EXISTENCE OF GOD

TIME was when the proofs of the existence of God formed an essential part of any self-respecting system of Philosophy. But for many years now this has ceased to be the case. It may be due to the gradual increase of the influence of Kant that the idea seems to have become accepted, tacitly, in the main, but none the less very widely, that proof or disproof of a belief such as this was hardly a fit subject for philosophical discussion at all. At any rate, it is noteworthy how rarely the question is faced directly in the philosophical discussions of the last forty years or so. What we have had, much more frequently, is discussion about how the God of religion might be thought of and what sort of place He might have in reality as conceived in this or that philosophical system. And certainly discussions on these lines have done much to clarify our conception of the Divine, even if they have sometimes seemed to explain it only by explaining it away altogether, or at any rate to present us with the idea of something which, whatever it is, is certainly not the God of any religion. But of recent years I seem to detect a growing readiness to face the question as squarely as the old theologians, who propounded the first proofs of God's existence, did. We do not, perhaps, put our question in the apparently simple but really very complicated form: "Is there a God or not?" But at least we seem to be feeling that Philosophy must make an attempt to

answer by philosophical arguments the question :  
“ What kind of Being, if any, can we find good reason for believing to exist to which we could properly apply the name of God ? ”

Needless to say, the arguments by which we seek to answer such a question take a different form from the old classical proofs. The Ontological argument, I should imagine, never convinced anyone except St. Anselm. The argument from the necessity for a first mover, or more generally for a first cause, carries very little more conviction to modern thought. The argument from design, in its old form, appears as a conclusion based on an inadequate basis of fact. But something like it, in a different form and approached from a quite different direction, is one of the most important that we still have to consider. The moral arguments still seem to some to be of importance. But at any rate in the form given them by Kant they cannot survive criticism. And the more modern developments of them, which are sometimes suggested, do not seem to me to have been worked out sufficiently clearly and consistently to be a satisfactory subject of philosophical discussion. The same difficulty arises in considering other interesting suggestions. I propose, without in any way suggesting that these are the only ones which hold the field at the present time, to select two types of argument for special consideration in this paper which seem to me of special interest and importance.

(1) The first I will christen the argument from the demand for a teleological explanation. I find this argument in one form or another in various modern theological writers. Perhaps I may be allowed for purposes of discussion to put it in my own way, in the form in which it would appeal to me as most convincing. In this form it would run something like this :—

Research in the history and methodology of the exact sciences reveals the fact that these sciences have

come into being and developed not merely, as some scientists seem inclined to assert, by the observation and recording of external sensible facts, but by the adoption prior to this of what can only be described as a particular philosophical theory of the nature of reality. No one, of course, doubts the absolutely essential part played by observation and experiment. But the more the origins and development of modern science are studied, the more clear it becomes that this observation and experiment have been set on the right track and guided throughout by certain assumptions, sometimes adopted implicitly, sometimes set forth as an explicit philosophical theory about the nature of reality. Indeed, on some points, the conclusions of scientific research may be looked at as the verification in detail of the general beliefs arrived at by philosophical speculation.

These general beliefs, in their application to the work of science, take the form of certain "demands" or "ideals of explanation," which are necessarily adopted before the detailed work of fulfilling them is seriously put in hand. And these demands can hardly be adopted with any confidence as guiding principles without a further assumption that reality must be such that they are capable of being met. As a matter of historical fact, this is what actually happened. The founders of modern science in the seventeenth century—Kepler, Galileo, Huygens, Descartes, Leibnitz, and Boyle—make it quite clear that they set out from a definite philosophical view of the nature of reality, for which some of them, at any rate, avow their indebtedness to certain ancient Greek schools of philosophy, and that this philosophic view provided them with an object and a programme for their researches.

What their philosophical views were can only be very roughly indicated here. To some of them the essential point was that the ultimate reality of things and the final explanation of what happened were to be found in those elements which were expressible in

terms of mathematics. More generally, the view was expressed that the ultimate reality must be one and the same behind all the apparent variations of it. Thus qualitative differences and changes only became intelligible when we had discovered behind them all an identical reality which differed only quantitatively. And the apparent quantitative differences only became intelligible when they were discovered to take place within an identity which remained always, even quantitatively, the same.

Now the remarkable thing, for our purpose, about these theories of the nature of reality, which provided science with its ideals of explanation, is that they were arrived at, in the first place, by philosophical reasoning unaided by scientific observation and experiment. It was argued, in effect, that reality must be like that, because only so will it satisfy the demands of our reason. And then, in some cases, centuries later, the work of observation and experiment demonstrated in more and more detail, to those who required verification by the senses, that reality really was like that. Thus the famous atomic theory was in its original form developed by pure reasoning about what reality must be like to satisfy the demand of our reason for intelligibility. And then by the progress of scientific investigation it was more and more verified, with many modifications, no doubt, and with still more additions and further developments, but always retaining a recognizable identity and showing an absolute continuity of development. Similarly the different doctrines of conservation were experimentally verified, but only after they had been first formulated as *a priori* doctrines put forward in response to the demands of reason.

It appears then difficult to escape from the view that we do in fact get certain information about the general nature of physical reality by reasoning from the principle of intelligibility long before it can be

verified by physical observation and experiment. But is our demand for intelligibility fully satisfied by the assumptions outlined above, which lie at the back of the development of modern science? It is the essential claim of the argument for the existence of God which we are now considering that it is not. Our reason is not, it is claimed, completely satisfied by these assumptions, and demands further explanation. And it finds this in the postulate of a purpose at the back of everything as its final ground. It must necessarily, of course, be a supreme purpose, and that involves the reality of a supreme Personality whose purpose it is. This, it is maintained, is a principle of explanation which finally satisfies the demand of our reason for intelligibility. And there is, therefore, just the same grounds for accepting it as there were for accepting the scientific assumptions which have been so fully verified since.

That is a brief and inadequate summary of the first of the arguments that we are to consider. What is its value? On two points it appears to me to make out its case. Its theory of the grounds of scientific knowledge and the place of the demand for intelligibility in the development of this knowledge I regard as established. It is true, no doubt, that it has not appealed to everybody, and that attempts have been made to escape from these conclusions by those who, for one reason or another, disliked them. But these attempts can hardly be pronounced successful, and do not survive the criticism of modern writers like Meyerson. This part of the argument is well founded. The second point which I think, though with some qualification, that we shall have to accept is the argument that purpose is a finally satisfying principle of explanation. It does seem that when we have explained things in terms of purpose we have an explanation beyond which we do not need to go. It certainly appealed to Plato, at any rate at one stage of his thought, as being

the most completely intelligible kind of explanation possible. What is perhaps more significant for our present argument, it appealed in the same way to some of the greatest of the early scientific thinkers. Newton, for instance, so far from wishing to banish final causes from his philosophy, saw in the will of God an explanation which could be applied beyond the limits of the purely scientific explanations that he was occupied in developing.

Yet, allowing all this, it seems to be true that, when we try to see how the two kinds of explanation work out in detail, we find vital and essential differences between the two, which must make us doubt whether the assumptions of the one can be accepted as confidently as those of the other.

The assumptions of scientific explanation are progressively verified by sensible experiment and observation as the sciences advance, and as they are verified they help us in turn to fresh knowledge. Thus, consider the general philosophical belief that, behind the qualitative diversity of phenomena, there must be an identity which can be measured quantitatively and expressed mathematically. This gives us something definite to look for in our experiments and observations, something experimentally discoverable. When we have discovered it our belief is so far confirmed. But the process does not stop there. For what we discover suggests further possibilities. We deduce certain further results which will follow, if it is true. These again are tested, and if it turns out that they actually occur, there is a further step in the process of verification. But the explanation in terms of the will or purpose of a Supreme Being is not at all like this. It is not directly verifiable. We may say that an ultimately intelligible explanation of why anything happened would be because God willed it so. But we have no direct access by any means to a knowledge of the will of God. And in the second

place it is not a fruitful assumption which leads on to further knowledge and suggests fresh lines of research. And that means that it is not indirectly and progressively verifiable as our knowledge advances.

The position is like this. If you start, for instance, with Kepler's assumption, "*ubinam qualitas, ibi quantitas*," that wherever there is a quality there must be a quantity, you have something definite besides the quality to look for. And if your methods are well chosen, you may find out what that quantity is. This is fresh knowledge, beyond both your knowledge of the quality and your knowledge of the general principle that there must be a quantity behind every quality. And, as such, especially taken in combination with similar bits of knowledge, you could deduce certain consequences which ought to follow, and can then verify by actual observation or experiment whether they do follow or not.

Take, on the other hand, the other assumption that the only ultimately satisfying explanation of anything must be given in terms of purpose. Apply it, say, to the Law of Gravity, and say that the only satisfactory explanation of why bodies attract one another with a force inversely proportional to the square of their distance is to be found in some purpose. You have then no further information beyond the fact to be explained, and the general principle of explanation. For if you are asked what the purpose is, you have no answer that you can give except that it must be the purpose that this should be so (*i.e.* that bodies should attract each other in that way), or perhaps also that the consequences which we already know to follow from this should follow. There is, therefore, no further knowledge of what the purpose must be from which we could deduce further consequences (*e.g.* that this or that is the sort of thing that must necessarily happen if that or this is the purpose at work), and then see if those consequences were verified

in fact. There is, therefore, no kind of verification in detail of this religious assumption, as there is of the scientific assumptions previously considered. The analogy between the two, on which the defence of the validity of the former was based, is very far from complete. It is true, of course, that the scientific assumptions were necessarily adopted before they could be verified, and that, therefore, in the formation of them some process of thought must have been at work which was capable of giving truth apart from direct sensible experience. And this should be sufficient warning to prevent us dismissing scornfully the claims of teleology as absolutely unfounded, or proved untrue by the lack of experimental evidence. But, on the other hand, the scientific assumptions were progressively verified, while other rival philosophical doctrines, such as Aristotle's, were not, though to many they seemed equally to commend themselves to the reason. So the analogy would suggest rather that a doctrine which cannot be verified in sensible experience may, it is true, be pronounced possible, but cannot ever be regarded as certainly established.

Even considered purely in the light of reason, it is open to grave doubt whether the claims made for it have not been excessive. I think it must be conceded that it is a satisfying explanation when it is applicable, and perhaps that it is just as finally satisfying as a mechanical or mathematical form of explanation. But is it more satisfying than this latter? Does the scientific explanation leave us asking for more, while the teleological explanation finally satisfies us? I cannot believe that this is so. I do not know how I can disprove it in a way which could convince those who feel firmly satisfied that it is so. But I think such evidence as we can get both from the general feelings of mankind and the more careful analysis of the idea of purpose is on my side.

As for the general feelings of mankind, it is true, of course, that the explanation in terms of purpose is very widely and easily accepted for all sorts of phenomena. We see it in the primitive animism which is supposed to be characteristic of the uncivilized man, and we can trace it for ourselves in the first untutored thinking of children. But it may well be asked how much of the ready acceptance of such an explanation is due, not to the fact that it appears finally satisfying to the reason, but merely to the fact that it is familiar. We naturally use what we experience in ourselves to help us understand occurrences outside ourselves, in default of a more satisfying explanation. That this is the reason is suggested by the fact that such a form of explanation appears to be very readily dropped when a physical or "natural" explanation is discovered to take its place. Certainly the first thinkers who began to formulate clearly the underlying implications of the demand for a scientific explanation, such as Parmenides and the first Atomists, appeared to feel no need for the introduction of elements of purpose. And if it is true that later great scientists, such as Newton, did seem to feel such a need, we may well ask how far that was due to the necessity for fitting into their scientific principles the belief in God which they had already received from other sources.

The general result of the appeal to human experience seems to be that the explanation in terms of purpose appeals to us more naturally as a possible alternative form of explanation, to be applied in regions where the other did not seem applicable, than as the one final explanation which must be looked for at the back of all others. That is the natural disjunction that we make when we ask, for instance, whether certain flint objects are the work of human hands or the result of natural causes. But the same distinction is applied more widely in the large class of arguments

which aim at showing that some group of facts cannot be adequately explained by a mechanical explanation, and that therefore for them the other kind of explanation must be appealed to. Many such arguments have been used as providing to some degree a proof of the existence of God. This was the final position of Plato, who bases his refutation of Atheism in the *Laws* on the fact of movement, change, and activity, which can only be explained by the working of soul or mind throughout the world. Newton wavered between this partial use of the principle and the more universal application of it as the final explanation of everything. "Gravity may put the planets into motion," he says, "but without the divine power it could never put them into such a circulating motion as they have about the sun."

But perhaps in modern times the commonest application of this form of the argument is as an explanation of the differences that strike us when we turn from inorganic matter to a consideration of the realm of organic nature. It is obvious to most people that the special phenomena which distinguish the organic world have not yet been satisfactorily explained by the laws of Physics and Chemistry. And it has appeared to many thinkers that there are features about them which give good reason for holding that they are of such an essentially different nature that they cannot possibly be so explained. It has been argued that these special features are really only intelligible if they are thought of as the work of some purpose. Such an argument must be approached with great caution, and could not be adequately dealt with without a vast amount of investigation of detailed points. But it is certainly noticeable how readily biologists themselves fall into this way of speaking, whether by personifying Nature, or by other phrases which imply the work of a purpose. This is true even of those who are most anxious to assert that they do

not really mean anything by the language that they use in this connexion.

I cannot pretend to pronounce finally on this aspect of the question. But the question to which I would invite attention is this. How far does the mind or purpose which could be invoked as the explanation of these phenomena correspond with the idea of God that the religious consciousness seems to demand? To take the first point that might suggest a doubt. I have already indicated that for purpose to be accepted as a satisfactory explanation of anything we ought to be able at least to give some suggestion of what the purpose is. And if we ask what kind of purpose is suggested by biological phenomena, the one most obvious feature of it is that it appears to aim primarily at the production of more and more life, while it would appear, at first sight at any rate, to be indifferent to the kind of life as long as this was capable of survival in its particular environment. I would not lay too much stress on this, as I think that there are possible indications which might be regarded as pointing to something more than this. But the second point is more important.

It seems to me clear beyond a doubt that the features of biological phenomena which suggest a purpose suggest with just as much force that it is not an omnipotent purpose. If we adopted a completely teleological explanation of such phenomena, the picture that we should be bound to form would be of a purpose working in a material or under certain conditions which were other than it and not completely controllable by it. The God of Biology would be no doubt immensely more powerful than anything that we can conceive from our own experience, but He would not be an omnipotent God. This result, indeed, seems inevitably to follow from any argument which appeals to the necessity of a God as an explanation of some special phenomena on the ground that other principles

of explanation, which are adequate to other phenomena, break down here. But now I want to take the question a stage further by asking whether such a result does not necessarily follow if we use the conception of purpose at all.

Our conception of purpose is clearly derived, in the first place, from our experience of it in ourselves. Of course, we can extend it very much beyond this. We can think away limitations which we find in our own case, but which we cannot see any reason for believing to be necessarily present whenever there is purpose at all. We may discover that certain features in purpose as we experience it are not essential to its very being. In many ways, in fact, we can develop or modify the original notion of it that experience gives us. But we cannot carry on this process to infinity. There must remain some recognizable element of identity. Otherwise we mean nothing by the use of the word, and it conveys nothing to those who hear it. And then it is of no value to us as a principle of explanation and its supposed attractiveness in that capacity disappears. It is purpose as we know it that appeals to us as a satisfying explanation. If we go on modifying its meaning until there is nothing of the original left, then it ceases to make this particular appeal to us.

What, then, are the most fundamental elements in purpose as we know it, and explain things by it in our own experience? It would seem clear that what it essentially means is, in the most general terms, the desiring or wanting some conceived state of things to be actual which is not as a matter of fact actual, and, further, which will not be actual unless we act in this or that way to bring it about. It involves, that is, a gap between our idea of what we want and the realization of it, a gap which has to be filled by some action. And that involves in its turn the assumption of some kind of limiting conditions other than the

purpose itself. The mere fact that we can say that there must be action at all to fulfil our purpose seems necessarily to imply this. But it is implied still more clearly by the fact that it has to be this or that particular kind of action. If any kind of action would do equally or indifferently to fulfil our purpose, then, of course, the purpose could never provide an explanation of why any particular thing happened, even if we could attach any meaning to such an idea at all. And that explains, and is confirmed by, the fact that in our ordinary and familiar use of purpose as an explanation we never do regard it as by itself a complete and sufficient explanation of anything. It is always purpose working in certain materials, or under certain conditions, which make it intelligible why this had to be done rather than that in order to fulfil the purpose.

What, now, are we left with if we try to think away those limitations in order to arrive at the idea of an omnipotent purpose? The distinction of means and ends goes, and with it the possibility of explanation of the means as necessary to the end. Perhaps, then, we can substitute for it the notion of a whole process, every step or every detail of which is desired by the Supreme Will just as much as every other. Such a notion, as already suggested, would be impotent to explain the reason for anything in particular. But we could not really stop here. For we should quickly find that, if we were serious in speaking of omnipotence, the gap between the idea and the realization of what we want would have to go too. And with it would go the very essence of the conscious experience of desire or wanting, which is the core of anything to which we can intelligibly apply the term purpose. If we are left with anything, it is only with the notion of a whole or absolute as the only final ground of everything within it. This is a notion of which it behoves us to speak with all respect. But it is emphatically not anything like an explanation by

purpose. And, indeed, it has been abundantly shown that such a view must necessarily regard purpose, or anything else that involves consciousness and individual personality, as partial, and therefore not ultimately real.

The conclusion I would draw is that the appeal to purpose as a satisfying principle of explanation has certainly considerable force. But it cannot claim to be decisively established, and if it points to anything, it points in the direction of a God or a Highest Purpose working in a Universe which includes Him as a part only of the whole, and a part which, however powerful and important, is at some point limited and restricted by other elements in this whole. I do not myself see any insuperable philosophic objections to such an idea. It appealed, if I interpret him aright, to Plato, in the final development of his doctrine. And on such a point I would accord to his views a respect at least equal to that owing to any modern thinker. But modern theologians seem unanimous<sup>1</sup> in their emphatic rejection of it. And, as long as they maintain this attitude, they must, if the preceding arguments are sound, forego the appeal to the teleological argument for the existence of the God of their theology.

(2) We come now to the second argument, the argument from religious experience. And the time spent on the previous argument will make it necessary to deal with this more shortly, though in itself it appears to have a greater claim to consideration. The essential feature of this line of argument is, of course, the claim that it is possible in some way or other to have an immediate experience of a kind that gives us a certainty of the existence of God, and that the certainty that it gives us is well founded, that the belief, in fact, is true.

<sup>1</sup> Not unanimous, though a large majority. It was pointed out to me that the late Dean Rashdall was a distinguished exception to this statement.

Appeals of this kind to the evidence of immediate experience have no doubt been made throughout the history of religious thought. But when this evidence has been put forward as a convincing and sufficient proof, it has in general been received with a certain degree of distrust and suspicion, even by some of those who would not deny the fact that it is supposed to prove. And there can be little doubt that such a sceptical attitude, at any rate to begin with, is wise. An immediate experience may bring absolute conviction to the minds of those who have it. But if we are asked to accept it, without more ado, as evidence which ought to bring conviction even to those who have not experienced it, then we do well to remember how many immediate experiences there are which seem certain to those who have them and yet which eventually turn out, beyond a doubt, to be absolutely delusive. And when this is realized, it can and ought to raise some doubt even in the minds of those who have the experience. An argument with which one cannot expect to convince other people ought not really to convince oneself. The great Catholic philosophers and theologians have, I think, in general been disinclined to base their faith on such experience alone. They have never, of course, doubted its reality or value. But they have always recognized that it could only be accepted because it was based upon and confirmed by the so-called rational proofs which ought to appeal equally to everyone who was capable of exercising his reason at all. And in taking this attitude they were undoubtedly wise.

And yet in much of the best modern thought on the subject this appeal to the religious experience seems to be taking the most important place, and to be increasingly put forward as the chief or sometimes the only rational ground for a belief in God. We are no longer told that God exists, and therefore we must worship Him. The argument is rather that we worship

God, and therefore He exists. And the growing confidence with which such an argument is put forward is, I think, easily explained. It arises from the fact that the natural scepticism with which its claims are at first received has led to a far more careful examination and analysis both of the nature of the experience itself and the conditions under which such an experience could be regarded as of evidential value. The kind of thing that I mean is well illustrated by that remarkable paper by the late Professor Cook Wilson on "Rational Grounds of Belief in God," in the second volume of *Statement and Inference*. But a much fuller treatment of one side of the problem is to be found in Rudolf Otto's book, translated into English under the title of *The Idea of the Holy*. That book seems to me a most acute and penetrating analysis of the elements of the religious experience, though I find it less satisfactory in its contributions to the other side of the question, the value of such an experience as evidence for the existence of any reality corresponding to the feeling.

In the light of these and other similar researches, the argument from religious experience takes on a different and much more precise form. In the first place, we have a far more precise explanation of what the religious experience consists of. Analysis reveals it as primarily and essentially a complex of emotional elements, which combine into an attitude of mind which may be variously entitled awe, the attitude of worship, the sense of the numinous, or other similar terms. From this feeling or attitude there follows the belief that there is a reality independent of us towards which such an attitude is appropriate, and further deductions may be made as to the characteristics that we must suppose this reality to have in order that this might be so. Some have tended to speak as if the emotional attitude was itself the belief, and have gone on to develop the argument on the old lines of the

supposed opposition between "reason" and "feeling" and the claim that "feeling" can give us truths which "reason" cannot. So far as the argument insists on taking this form, I may say at once that I believe it to be foredoomed to failure. Properly to discuss the grounds for this belief would take me far beyond the available limits of space. So I will merely say that I regard this supposed opposition as entirely fictitious, if not meaningless. It appears to me to be based on a radical misunderstanding of what is meant, and of what can be meant, by reason.

The truer account, as it seems to me, describes the belief as a judgement or inference from the emotional experience, following on it immediately, no doubt, at any rate in its most rudimentary form, but still distinguishable from it. It is, in fact, an inference which like all inferences proceeds from certain grounds. And the main point at issue is, then, whether an emotional experience can be a valid ground for inference from it about a reality beyond the experience, and if so, under what conditions. At any rate, it is clear that it is only when so presented that the argument becomes an argument which can be discussed at all.

Can we ever, then, validly argue from the existence of an emotional attitude to the existence of a reality towards which such an attitude would be appropriate? It will, perhaps, help to clearness at the outset if we distinguish the mental process suggested by such a supposition from two other kinds of mental process, which are really entirely distinct from it, though in superficial discussion of the subject they are often confused with it.

(i) We may have a belief, or entertain a supposition, and feel an emotion aroused by it, either of attraction or repulsion. We feel that we like (or dislike) the idea, and wish that it should turn out to be true (or untrue). Such an experience is very familiar to all of us. And it is sufficiently obvious that the emotion is extremely

likely to affect our thinking when we come to examine the question whether the belief or supposition is really true or not, and to lead us to accept the conclusion which most attracts us. But, of course, such an emotion is in no way and in no degree a valid ground for inferring that the belief at which we arrive is true. On the contrary, we should all of us be ready to admit that any direct effect that the presence of such an emotion has on our thinking is necessarily bad, and that so far from guaranteeing the truth of the conclusions towards which it leads us, it ought to make us particularly suspicious of them. It is, however, quite clear that thinking of a belief and then feeling an emotion towards it is an entirely different thing from experiencing an emotion, and then inferring certain conclusions from it. And the fact that the former process is not likely to lead to valid thinking casts, in itself, no kind of doubt on the validity of the latter. Also, be it noted in passing, the emotions concerned are very different. Attraction or repulsion towards an idea or belief have neither of them any resemblance to the specific quality of the emotions which make up the religious experience.

(ii) That ought to be sufficiently obvious. But there is another case which there is somewhat more excuse for confusing with that under consideration. If we have once experienced an emotion in the presence of a particular kind of object, we may at some other time believe an object of this kind to be present. We shall then, probably, experience the emotion. But once more, an emotion experienced in such conditions is no guarantee at all that such an object actually is present. We may have a horror of snakes or be terrified of loaded pistols. We then hear or see something which we believe to be a snake or see a pistol and think it loaded, and feel the consequent horror or terror. But, of course, we may be quite wrong about the thing being a snake or the pistol being loaded. In extreme cases the whole thing may be a hallucination. The emotion here

is no kind of guarantee of the truth of the belief. But once more on inspection the cases prove to be entirely different. For in the situations that we have just been describing the emotion is never supposed to be the ground of the belief. No inference is made from the emotion at all. The belief or inference, again, comes first, and the emotion follows from it.

That is the simple and obvious reason for rejecting the analogy between an experience such as this and the experience of a belief in God arising from the religious emotion. But a further examination of the differences between the two situations may throw more light on the kind of claim to validity that the latter experience may make.

In the case of the snake or the pistol the error or delusion is about the presence of a particular snake or a particular pistol at a particular time or place. The fact that there was an error on the particular occasion throws no sort of doubt on the belief that there really are such things as snakes or loaded pistols in existence. Further, we only feel fear as a result of our erroneous belief because we already have a correct and well-founded belief that snakes do exist and that pistols are often loaded. But it will be said that this has nothing to do with the argument, because we obviously do not arrive at our belief in the existence of snakes or pistols from the emotion of fear. And that is obviously true of these particular objects. But is it quite so obviously true when we come to the more general consideration of what it is about them, as about so many other kinds of object which arouses the emotion of fear? It is not the concrete reality, snake, with all its qualities, its zoological relations, its anatomical structure, etc., which really frightens us, nor are all the elements which make up the loaded revolver, the colour, the material, the process of manufacture, equally concerned in making us afraid of it. We fear them ultimately because they both have the property of being

dangerous to our lives or well-being. That, again, it may be said, is learned by experience. But go back further still. Is the reality of the general property of dangerousness, the fact that there are real things which are dangerous, entirely given to us by experience? Do we have to learn this first, and then, and not till then, begin to experience the emotion of fear? A study of comparative psychology, and I am inclined to believe careful examination of our own experience, suggests that this is the very reverse of the truth. It suggests that, in fact, the emotion of fear is a much more primitive experience than the knowledge of the dangerousness of any particular thing. We are frightened before we know why, and before we know anything definite about what frightens us except that it is frightening. And most animals, indeed, never get very far, if at all, beyond that stage. If the blackbird that cries out at the sight of the first cat he sees was capable of speech and inference, he might say, "I feel frightened, and therefore I know that there are dangerous creatures in the world." And he would be quite right. His inference would be perfectly valid.

It may seem a far cry from the scream of the blackbird to the proofs of the existence of God. But the remoteness is only apparent. For we are bound to look for analogies elsewhere to the process whose validity we are discussing, if we are to arrive at any conclusion at all about it. If the claim were made that the religious emotion was unique in that respect, if it were said that no other emotion could be a valid ground for an inference, but that this special emotion was, then I do not see how the question could be discussed at all. The claim would be a simple assertion. And though it might not be capable of positive disproof, it could equally little be capable of proof, and could carry no conviction. It would not be a rational argument. But if we want it to be a rational argument, we must attempt some kind of proof. And the only

kind of proof that could be attempted would be to show that this process of inference, which seems at first sight so contrary to our notions of valid reasoning, does in fact take place on occasions in which we should be forced to recognize that it does, or might, give valid results. And any illustrations of this, however apparently trivial or far-fetched, would be of help to us.

The value of the study of animal behaviour for our purpose, I think, is this. It gives us good reason to doubt the assumption that we so readily make that the facts of external reality are necessarily and always revealed to us in the first place by a cognitive process, and that our emotional and conative reactions to them follow from this. An examination of the behaviour of other forms of life suggests that this is by no means necessarily the case. In those animals in which instinctive action seems most fully developed there appear to me to be good reasons to suppose that the instinctive reaction to a situation, in the form of bodily movement, may take place without there being anything in the nature of cognitive awareness at all, even the most elementary sense perception. Whether the same ever applies to emotion, when there is reason to suppose that it is present, is much more doubtful. But it is quite clear that it may and often does arise without there being any cognition of the qualities of or the facts about the situation which make that emotion appropriate to it. In such cases an inference to the external fact might be perfectly valid, though the animal, of course, is not capable of making it. Even though in particular cases the inferences might be wrong, the general inference from the occurrence of such emotions to the existence of that kind of object in the world would still be sound. Human beings, of course, have generally other means of knowing such facts by cognitive processes. But there is obviously nothing in the least absurd in the supposition that there may be facts or entities in existence for the apprehension of which we

have no cognitive organs developed, and which we can only know through our emotional reactions to them.

This, of course, remains a mere supposition unless we can find analogies in human experience which suggest that such things actually do occur with us. Are there such analogies? There are a certain number of obscure and uncertain cases which might seem to point to it, if we could be sure that they were accurately reported. One not infrequently hears, both in fiction and real life, of people waking up "feeling there is something wrong," and rushing downstairs to find the children's room on fire or a murder being committed on the ground-floor. Somewhat similar cases have been reported and classed under the convenient general head of telepathy, where a strong emotional experience has led to the conviction that some person is in danger or in sorrow, a conviction, it is said, which has sometimes been verified later. Then there are curious stories of people who have a horror of cats, and are convinced, by feeling the horror, that a cat is in the room, though there are no perceptible signs of its presence, until a search is made and it is discovered asleep behind a curtain. All such cases ought to be of great interest. But, in fact, they have hardly ever been investigated scientifically nor the evidence for their occurrence properly scrutinized.

But there is a much more general and more important field for investigation than these cases, and one which may throw much more light on our special problem. That is the question of the grounds for our belief in the existence of other minds like our own. How is it that we are all so absolutely convinced that there are other minds which think and feel as we do, though we can never, in the nature of things, have direct perceptual knowledge of them? The favourite, or at any rate the most familiar, answer is that we infer it from sensible observation by the aid of analogy with our own experience. We observe other bodies behaving like

our own body, and therefore infer that they have mental processes like those which we can only know directly in our own case. Sceptical philosophers have sometimes pointed out the logical uncertainty of such an inference. But more serious objections to it have been raised by thinkers who believe that an alternative, more satisfactory explanation is to be found. Professor Alexander, to name one of the most recent and most weighty of these critics, argues that the true ground of our certainty of the existence of other minds is to be found in our experience of emotions towards them which would only be appropriate towards beings like ourselves. "We do not," he says, "first apprehend that another being is a mind, and then respond to him, whether positively as in affection or negatively as in aversion: but in our tenderness or dislike we are aware of him as like ourselves. Just as the emotion of fear or the instinct to run away from certain things discovers them to be dangerous, so in seeking the company, or avoiding it, of our fellows we are aware of them as like ourselves."

It is, it seems to me, merely an obstinate preconception that there must have been an inference by analogy of the kind supposed that prevents us seeing the truth of such an argument. I speak with feeling, having been for long a victim of this particular prejudice myself, which makes me bolder now to assert that it is merely a prejudice. But surely it ought to be obvious that not only is there no evidence for the process supposed, but that it is almost impossible to see how it can have taken place. We are asked to suppose that at a very early age we conduct a prolonged series of observations, first of our own bodily behaviour and then of the bodily behaviour of other people, compare and contrast them, abstract from the differences, note the resemblances, and decide finally that these resemblances are sufficient to warrant us in inferring that these other bodies have minds and mental processes like ours. Is such an account even plausible? I would

suggest one very obvious objection of detail. That is, the fact that we do not, as such a theory would suppose, ever observe our own bodies and their behaviour in the way in which we observe other bodies. We do not naturally think, in the first place, of our own bodies as something that looks like that. Some parts of our own bodies, important parts like our faces and facial expression, we can never observe at all—except, of course, in a looking-glass; but it will hardly be contended that our conviction of the existence of other minds only began when mirrors were first discovered. But, in any case, it ought to be clear that the observation of our own bodies and the observation of other people's could never have given sufficiently similar results for such an inference to be drawn as this theory supposes. The whole account bears the stamp of fiction to anyone who will look at it without prejudice.

Of course, it is a very primitive tendency to ascribe minds like our own to other objects than human bodies, objects in which we are afterwards convinced that no minds are present. But that really confirms our objection. For such objects are far too unlike our own bodies for the inference from resemblance ever to have been made. And the ascription to them of human minds could only be possible because we are already so certain that there are other minds like our own. It is clear, again, that we may be mistaken and change our minds about the ascription in any particular case of a human mind to a particular object. But that in no way affects either the certainty or the validity of our general belief that there are other human minds in existence. The process by which we alter our beliefs in detail is interesting. I used to think, when still in process of getting rid of ancient prejudices, that, even if the general conviction of the existence of other human minds came from a different source, the question whether we were to suppose a human mind in any particular case was decided by analogy from our own

behaviour. But even that now seems to me untrue. If we are trying to decide whether a particular object is a waxwork or a human being, we really judge not by a comparison of its behaviour to that of our own bodies, but by a comparison of its behaviour to that of other bodies which we are sure are the bodies of human beings. We do not think, "It's moving just as I do," but, "It's moving just like so-and-so, or like all the so-and-so's that we know." And the whole process of thought takes place within the framework of the ineradicable conviction that there are other minds like our own.

It seems to me to follow with perfect certainty from these considerations that we do, as a matter of fact, infer from our own emotional attitudes to the existence of realities outside ourselves to which these attitudes are appropriate. And it also appears that these inferences may be valid and give us truth. When we realize this, we see the great seriousness and weight of the argument for the existence of God from the fact of the religious experience. Berkeley said that we know God by evidence of the same kind as we know one another. And Professor Alexander, in modern times, quotes this remark in summing up his own line of argument.

What further evidence can we get or do we require to satisfy ourselves that the fact of the religious experience really does not only give rise to, but also justify the belief in the existence of a Being to which it is appropriate? Such further evidence we can only look for in an examination into the nature of the religious experience itself, on the lines followed in Otto's book. I could not attempt such an examination, nor even to evaluate the results of those who have attempted it. I will only indicate what results I think that it must establish, if its final claims are to be accepted as valid.

I do not think the extent of the religious experience is of very great importance. Even if it were perfectly

valid there would be nothing to cause surprise in the fact that a great number of people had never experienced it and might even be incapable of it. On the other hand, it would be impossible to investigate it and decide whether it was a true experience and what it included unless a considerable number of people had had it and given some indication of what it was. The essential point to establish is the uniqueness of its quality, to show that it has a special nature of its own, differing as much from any other emotion as fear differs from love. It would not matter very much if it were shown that certain elements were to be found in it that could also be present in other emotional states aroused by other objects. But if the essential quality of the whole were shown to be the same in kind as the essential quality of the emotion aroused by some other known object, then the validity of the argument from the experience would be seriously weakened, if not destroyed altogether. If, for instance, it were shown that the essential quality of the religious emotion was fundamentally the same as the primitive emotion of fear of unknown dangers or as the emotion of sex, then it would be easy to see how these emotions, originally aroused by real objects, could be transferred to an imaginary object. And, of course, it would give no guarantee at all of the existence of the imaginary object. In general, it seems to me that those who have attempted to reduce the religious emotion to one or other of these two emotions have proceeded on a very inadequate basis of knowledge of what the actual content of religious experience was. But I am not sure that the more patient and scientific examination of the religious experience has yet been carried far enough for us to say with certainty that every such attempt to reduce it to something more simple and familiar must necessarily fail. But if it does attain that point, if it really succeeds in showing that the religious experience in all its different manifestations retains an identical and unique quality

of its own, different in kind from any other, then I think we can say that, with as much certainty as we believe in the existence of other human minds, we may believe in the existence of a God, the object of religious worship.

I will end with something in the nature of a warning. The general view that, in the sense and under the conditions outlined above, our emotional experiences can give us information about reality seems to me true, but very dangerous. It might so easily degenerate into a readiness to accept any kind of belief that our emotions seemed at the moment to point to, and a general slackening of the rigour of our demands for hard thinking and careful scrutiny of the evidence. Such a development would be disastrous. So I would emphasize, with all the power at my command, the absolute necessity of the most careful precautions before accepting such a line of argument in any particular case. That is why I think that we must demand a good deal more investigation into the nature of the religious experience before we can say, with confidence, that it provides the kind of evidence that can be accepted as proof.

And there is a further point of great importance. Even if we think that the investigation has been carried far enough to enable us to say with confidence that there does exist a reality which can be the appropriate object of religious worship, it is clear beyond a doubt that it has not been carried far enough for us to be able to say with certainty what the nature of that reality must be. That is evidenced by the great difference of opinion both between the various thinkers who have tried to arrive at conclusions on the point for themselves, and also between the various organized bodies of religious opinion which exist or have existed. The argument has certainly not yet reached a stage of development at which it could be pressed into the service of any particular Church. Thus it is not even

clear that the religious experience necessitates the belief in anything that we could call a personal God. The great religion of Buddhism, if I am rightly informed about it, seems to be able to dispense with such a notion. And yet the reality of Buddhist religious experience is undeniable. To some modern thinkers the divine is a quality belonging to reality rather than an individual personality. To Professor Alexander it is even a quality which has not yet come into being, but towards which the universe is tending. And his is an opinion that cannot be lightly disregarded, though I am bound to admit that on this point I find it very difficult to accept. We need far more thought and discussion and examination of the evidence before we can venture on an opinion on points such as these. On some of them, perhaps, a definite opinion will never be possible. But it would be merely a piece of premature dogmatism to say what these points are. I have no sympathy with the dogmatic anti-dogmatist who says with certainty that it is impossible to arrive at any conclusion on these points, that all theologies are equally true or false, and that the only attitude for a wise man is to accept the religious experience, and to say that there must be an object for it, but that we can never know anything about what the object is. I believe that, if the religious experience points to a reality at all, we ought to be able to discover from a careful examination of this experience a good deal about what that reality must be. At the least, we have no right to say that it is undiscoverable until we have made a real and prolonged effort to discover it. Any other attitude is to submit to what Plato declared to be the greatest of all evils—to lose our faith in reason.

#### POSTSCRIPT.

This paper was originally read to the Oxford Philosophical Society and a very interesting discussion

followed it. It would, however, be impossible to deal here with all the points raised. The most important point raised in direct criticism of the argument of the paper referred to the description of the process by which the religious emotion might form the ground of a belief. In particular, the use of the term "inference" was questioned, and it was urged that there would hardly be a distinct process, following on the emotion, which we could speak of as an inference. Rather it seemed that the emotional experience was itself, or included as part of itself, a belief. It was pointed out that when it was a question of our belief in the existence of other minds like our own it was impossible to detect anything that could properly be called an inference, following on an emotional or other experience. Our belief was part and parcel of the experience. It went back to the earliest stages, and was inseparable from our general attitude towards other beings. The fact that we could not really think of it as an inference, based on grounds of something else, was proved by the fact that we were not really capable of doubting it. This is a summary, and I fear a very inadequate one, of the results of a prolonged argument. Any attempt that I can make here to deal with it will probably seem even more inadequate. For I recognize that the actual processes of mind involved are so extremely obscure and difficult to observe that I may well be mistaken in any analysis of them that I can give.

In the first place, it must be admitted that our belief in the existence of other minds like our own can hardly be literally described as an inference. But then it may equally be doubted whether it can be literally described as a belief. We certainly never in our normal experience make the general judgement that other minds like our own exist. For to make a judgement implies a previous question; and we cannot even ask ourselves this question, whether they do exist or not. We can put it into words, of course. But the words do not express

any state of mind that we actually go through. In fact, we find ourselves feeling and acting as if there were other beings like ourselves. And, normally, we never get beyond this. It would, indeed, be truer to say that we never doubt that there are other minds than that we positively believe it. Yet if by an unusual effort of thought we do formulate it as a belief and ask ourselves why we never doubt it, we cannot really give any other grounds for our certainty than this fact, namely, that it is our nature to act and feel as if there were other human minds. That is the nearest approach that we can make to an inference from grounds.

This being admitted, it may then be asked, Have we any right to treat the religious belief as an inference? If it is analogous to the belief in other human minds, ought it not to be equally immediate and indubitable? Yet it appears certain that it can be doubted, and is doubted, by many people. Certainly it is often doubted by those who do not have the emotional experience, and there appear to be good grounds for believing that even those who have had it may come to doubt that it pointed to any reality outside the emotional experience itself. They may not have been justified in doubting it. But the mere fact that it was possible to doubt it seems to point to the fact that there was an element of inference in the belief based on the first experience. And when doubts or questions are raised the inference becomes explicit, whereas, no doubt, in the first occurrence it is simply taken for granted.

It might be argued alternatively that the mere fact that the belief can be doubted shows that it is not on the same footing with the belief in the existence of other minds, and that therefore the analogy of this latter belief cannot legitimately be used to support the validity of the former. Obviously there must be important differences between the two cases to make it possible in one and impossible in the other to raise doubts and ask questions, and by so doing to make the process of

inference explicit. But I think analysis will show, though I have not space to attempt it here, that if the religious experience fulfils the conditions laid down in the body of this article, then the differences are not of such a nature as to destroy the validity of the argument by analogy from our belief in the existence of other minds.

1928.



## THE VALUE OF ETHICAL AND POLITICAL PHILOSOPHY IN PRACTICE

IT is a healthy exercise for those of us who are engaged in the study of philosophy to ask ourselves from time to time whether our studies have any real effect on the conduct of ourselves and our fellow human beings. And certainly there are many who would answer this question with a decisive negative. They might admit that these speculations are, as one of our leading contemporary philosophers puts it, "good fun" for those who have a taste that way. But they would assert that the vast majority of people, including, they might suspect, most of the philosophers themselves, made no use of these speculations in the actual conduct of their lives, and got on very well without them. The philosopher, in defence of his study, would have to attack one or both of the assertions implied here. He might take up the line of argument suggested by Plato, and ask whether the majority of people did really get on so very well in the conduct of their lives that no improvement was possible. And he might argue that the most hopeful direction from which improvement might come would be from the extended application of philosophical thinking to their difficulties. There is undeniable point in Plato's retort that the reason why the philosopher is of no use to the practical man is that the practical man will not take the trouble to make use of him.

On the other hand, he might substitute for this, or combine with it, another line of defence. He might

ask whether the mass of people were really so innocent of philosophy as they supposed. After all, even the most practical of practical men thinks sometimes. And we may suspect, even though he does not give the name to it, that an element of that special kind of thinking that we call philosophical will inevitably intrude itself from time to time into his thought. If that is so, it must affect his practice in some degree. And it is reasonable to suggest that, as he has to think philosophically at times, he should take some trouble to make his philosophical thinking as sound as possible.

One of the chief obstacles to the recognition of this has been the fact that philosophers sometimes have put forward, and sometimes have been wrongly supposed to put forward, claims for the practical effects of their study which cannot be substantiated. Also, the practical man, when he has given a momentary consideration to the possible value of philosophy, has sometimes made demands on it which it could not possibly fulfil. And, because it could not fulfil these, he has leapt to the conclusion that it can be of no practical value at all. It is therefore of the first importance to consider what philosophy cannot do, and should not claim to do, for practice. That is an essential preliminary to deciding what, if anything, it can do.

In the first place, it would now probably be generally admitted that philosophy cannot arrive at a single general principle of right conduct from which, by a simple process of deduction, we could decide without difficulty exactly what was right to do in any particular circumstances. There is no doubt that Kant thought he could do this. But the general consensus of opinion is that his attempt failed. In explaining this failure stress is generally laid upon the infinite possibilities of difference in the circumstances of each particular action, which make it impossible to arrive beforehand at any general rule which will apply to all possible circumstances. But though criticism on these lines is

undoubtedly sound as far as it goes, it does not seem to me to get at the real point of weakness in the Kantian theory. At any rate, as usually formulated, it does not draw out sufficiently clearly its own implications. For the reason why it is thus impossible to arrive beforehand at absolutely universal rules of conduct lies in the very nature of our moral knowledge.

Most human beings, of course, have a greater or lesser number of general principles of conduct in their minds by which their behaviour is influenced. The greater part of these comes to them from the tradition in which they have been brought up. Some also comes from reflection on their own actions and feelings and moral decisions. But the reflection is always subsequent to the experience of the particular case. First-hand moral experience always, I think, comes to us in connexion with some particular case in some particular circumstances. On the comparatively rare occasions on which we have such experience we feel more certain that it would be right or wrong to act thus or thus on this particular occasion than we do about any general statement of the kind of action that is right or wrong, or of the nature of the qualities, rightness and wrongness.

In this way and in this degree our general moral principles are subsequent to and dependent on our particular experiences. That does not mean that we arrive at these principles by a process of induction in Mill's sense. We do not examine a large number of particular moral judgements and try to discern the common elements in them by the methods of Agreement and Difference. It is rather induction in the Aristotelian sense. By examining our experience in the particular case we find that the universal element in it which makes us think of it as right or wrong is, to some degree, revealed to us directly. And so, if we like to take the trouble, we can generally formulate to ourselves some general moral principles based on our analysis of this particular case. But this is subsequent, and can only

be done after we have experienced the particular case, either in actual fact or in imagination, if our imagination is vivid and concrete enough.

On the other hand, there is always the danger of generalizing too far or too rigidly. No single particular experience nor any finite number of particular experiences can contain in themselves the whole of goodness or rightness. And therefore we could not be certain that we had a completely satisfying moral principle until we had exhausted all possible particular moral experiences. Short of that, we have to recognize that any moral principles we can formulate are provisional, the best we can arrive at in the circumstances. And though they may work perfectly satisfactorily as far as our experience goes, we must always bear the possibility in mind that they may have to be added to, developed, modified, and corrected in the light of further experience. This is one of the ways in which moral progress is possible.

I have dwelt on this point to bring out my contention that any general beliefs and statements about morality, any system of casuistry, or any philosophical theory is necessarily dependent upon and controlled by first-hand moral experience, and cannot control it. To state fully what the nature of this first-hand moral experience is would require a prolonged and careful work of analysis which would be impossible here. It is sufficient for the argument if we recognize, as we surely must, that there is something to which this term might be appropriately applied. And, whatever it is, it is not a piece of philosophical reasoning.

This will help us to see why another demand that is sometimes made on philosophy is unreasonable and impossible of fulfilment. The moral philosopher is sometimes expected to give an answer to the question, Why should I be moral? The legitimacy of such a question has been much canvassed. And there are doubtless certain senses of the words in which it is capable of being answered. But in the sense in which it

is most frequently and popularly used it is an entirely unreasonable demand to make. For in that sense, if I mistake not, it is suggested that the moral philosopher ought to be able to supply an argument which will make anyone who hears it not only see why he ought to be moral—which is, after all, a mere tautology—but actually wish to be so. It is supposed that he ought to be able by argument and reasoning to supply a motive for being moral to a person—usually a hypothetical person—who has no such motive already. And that demand is an absurdity. Moral philosophy, perhaps all philosophy, can only arise by reflection on experience. It cannot create or supply the experience.

Are we, then, to suppose that our conduct can be guided entirely by a series of such experiences in each individual case? There have been people who have supposed so. In particular, members of certain religious sects have felt that they could or should leave the control of their actions to an "inner light" which could decide for them infallibly what they ought to do as each problem arose. If that were true, there would certainly seem no room for philosophical thinking as a guide to practice. But I think experience has proved that is not possible. For the inner light is, for most people, neither certain enough nor continuous enough to be a guide throughout life.

It raises problems of interest, which unfortunately cannot be considered here, when it is suggested that what has been described as "first-hand moral experience," and had the character of immediacy or directness ascribed to it by implication, could be fallible. Does the possibility of mistake lie, not in the decision whether the action is right or wrong, but in the view of what the nature of the action itself is? Or is the experience of such a kind that some other sort of experience might be mistaken for it by those who do not trouble sufficiently to discriminate between their experiences? Whatever the explanation is, the fact

seems undoubted that, though at the time of the experience it seems to give us a certainty at least much greater than anything else can give, yet we may subsequently come to believe that it guided us wrongly. And, further, it may happen that different people may have moral experiences to all appearances of the same kind which guide them in opposed directions about the same course of action.

If the "inner light" is not an infallible guide, still less is it a continuous guide. This, again, is a fact which requires explanation, but which, as a fact, seems indubitable. Most of us have probably had such experiences, but most of us would recognize, I think, that they do not occur very often in our lives. Perhaps it is because to put ourselves at the point of view at which such experiences come to us is not a simple thing but requires an effort. It is only occasionally that circumstances are such that in themselves they force us to this point of view. And this effort is too great for ordinary people to carry on continuously, and would only exhaust us fruitlessly and unnecessarily. We, therefore, ordinarily have recourse for guidance to general rules or principles. Sometimes we have formulated these for ourselves by reflection on our own experience. Far more often we take them over from the accepted moral standards which we find in the world about us. These, too, have been built up largely by reflection on the moral experiences of many people throughout many generations. But in both cases the reflection takes us considerably beyond the original experience, and the results may be distorted in the passage from one person to another. It is in the examination and criticism of the general notions which have resulted from this process that the chief work of the philosophy of conduct lies.

Its primary task, perhaps its only task, is an examination, an analysis and an evaluation of the general ideas which we take for granted in our ordinary

moral and political decisions. Moral philosophy is most deeply interested in the fundamental moral ideas of good and right. But that by no means exhausts its field of interest, and it concerns itself also with many subordinate moral ideas, like justice or courage or selfishness and unselfishness. And though its examination of these last may not be complete till it has carried it on to the more fundamental moral categories, certain provisional results may be arrived at very soon which affect the way in which we use these general ideas. Political philosophy analyses the conceptions of the state, sovereignty, independence, liberty, democracy, and so on. Thinking about these things must affect our attitude towards them in some way and in some degree. And if we begin to think and feel differently about them, at some point we shall begin to act differently.

Philosophy, then, affects our conduct not by providing a direct and immediate guide in action, but by influencing and modifying the accepted standards of conduct which lie in the background of our minds. I think a careful historical investigation could show many instances of this. The difficulty which many practical men will find in believing it arises from many causes. Partly it arises from the mistaken idea that philosophical thinking is confined to what goes on in the philosophical department of universities. But the chief difficulties arise, once more, from extravagant expectations of what philosophy ought to be able to do.

Thus many young men, when they begin philosophy, believe that by one single systematic train of argument it ought to be possible to change entirely the assumptions on which we act and present us with a complete set of new ones, whereas, in reality, the effect of philosophical discussion and criticism only begins to show itself slowly and gradually, after it has been going on for a considerable time; and the modifications in our assumptions that it eventually produces often take a

different form from the views advocated by any one individual who has taken part in those discussions.

Nor, I think, can we claim that philosophical thinking ever by itself produces much effect on the established assumptions which govern our conduct. At the least, it needs some stimulus from surrounding circumstances and some influence, other than itself, to turn its activities in this particular direction. It only produces its effect when it works in conjunction with other influences which are moving us in the same direction. But it would be equally absurd to exaggerate in the opposite sense, and speak of it as merely a by-product of these other influences, which makes no difference to the effects they produce. Even if philosophical thinking could do no more than interpret and make explicit the other tendencies at work it would still make a profound difference to the way in which they worked. And there is no real doubt that on occasion it can do much more than this.

Finally, we must beware of the danger of what has probably done more to discredit the claims of philosophy than anything else, the premature construction of systems. Of course, in a sense, our thinking must aim at a system as an ideal: that is, we must always be striving to make it as complete and consistent and coherent as possible. But to suppose that any one of us can ever arrive at one moment of time at a complete and final system, which from henceforth we can apply without modification to the conduct of our lives, is a vain dream. Still more vain is the hope that one person could find a complete system by which other people could rule their lives. The practical value of philosophy lies in the constant and vigilant criticism of the assumptions which, without it, we should take too readily for granted. And its effect shows itself in the gradual and sometimes almost imperceptible development and modification of these assumptions. We often do not see that this development is taking

place until one day we look round and realize that people are thinking very differently about this or that point from what they thought a generation or more ago. We say that the ordinary accepted moral or political ideas have changed. Many influences combine to bring about these changes. But among them philosophical discussion, not always or necessarily called by that name, plays a real part. And on the nature of this philosophical discussion will, to some extent which we cannot measure exactly, depend whether the changes are for good or evil.

1930.



## VIII

### IS MORAL PROGRESS A REALITY?

**I**S there really such a thing as moral progress? Do we get any better as time goes on? It is a question which must often exercise the minds of those who reflect on moral questions at all. And it is a frequent topic of discussion, both in private conversations and in the written contributions of a good many of our popular philosophers. Of some of these contributions one may safely say that their chief value is as a warning against the dangers of hasty generalization on a subject such as this. And, taking advantage of such a warning, I shall make no attempt to give a final or dogmatic answer to this question. All I can try to do, within the limits of a single lecture, is to disentangle some of the most important considerations that seem to be in people's minds in discussing this question, and to estimate their importance as arguments on one side or the other.

I dare say that some of my audience will expect me to begin the discussion with a series of careful definitions, in which I should state at length exactly what I mean by "moral," by "progress," and perhaps by "reality." I am not sure that there might not be something to be said about the meaning of "is" and "a." On some subjects, and in the hand of some writers, this might be no doubt a fruitful method of approach. But I will ask to be allowed here to adopt another method, which in my own thinking I have often found more fruitful, and begin by supposing that we know what we mean by these terms, at least enough to start the discussion.

And perhaps at the end of such a discussion we may find that our meaning has become somewhat clearer to ourselves than it was before. And we may be prepared then to make an attempt at the definition which we evaded at the beginning.

Are there any undoubted facts that we can start from which will be relevant to this discussion? One fact, that seems to me not to admit of doubt, is that people do make moral judgements. That fact is the starting-point of all ethical discussions. And it remains a fact if the final conclusion of our discussion is that we have no grounds for making such judgements. And a further fact is that at any particular time in any particular society there is a large number of such judgements which are generally accepted without very much question, and which most of us do no more than apply to particular actions and particular persons as we become acquainted with them. These are what we call the accepted moral standards of the time, or the ordinary ideas of morality current among us. Further—and here we come on something more immediately relevant to our particular problem—these accepted standards or current ideas do change from one time to another, and, at the same time, differ from one group of people to another. It is true that these differences have often been very greatly exaggerated. But that there are some differences can hardly be doubted. And I suggest that one meaning of our question is, Are these changes in the accepted standards, which influence so much of our conduct, always or sometimes changes for the better?

Here, at the outset, I can imagine that a difference of opinion might develop from some quarters. It might be urged that it did not matter so greatly what our moral standards or ideals were. The important thing is that we should live up to them. And progress must therefore be looked for in an increased fulfilment of these ideals rather than in any change in the ideals

themselves. But there are grave objections to this view. It might be suggested that one result of it would be that moral progress could be attained just as well by lowering the ideals as by making a greater effort to live up to them. We could get our standards observed by simply leaving out anything that people found very difficult. And that would certainly be a queer meaning of progress. Yet I do not think that this argument is the real objection against the view. For, though such a result might be theoretically possible, it seems that in practice the much more likely result would be that, as the moral standards were lowered, the efforts to live up to them by those who found it difficult would be correspondingly weakened.

It seems to me to lie in the very meaning of moral standard or moral ideal that it implies a principle of conduct which in some way is different from other principles of conduct or other possible motives for action at work among us, and which, on occasions, may conflict with them. If the conflict is a real conflict, there will always be the possibility that for some people in some circumstances these other motives may prove stronger than the moral motive. There will always, therefore, be a certain gap between accepted moral standards and actual conduct. On the other hand, if the gap becomes too wide, if it becomes so wide that the supposed moral ideal has little or no influence on conduct, then I should say that it does not deserve to be called an accepted moral standard at all, even though unthinking people say that it is.

To illustrate what I mean, I should say that at the present time among ourselves it really is an accepted principle of conduct that lying and stealing are wrong, though there are plenty of liars and thieves. But, at the lowest, we condemn these things in other people, we resent it if we are accused of them ourselves, and we feel ashamed if we are found out in them. Here the accepted moral standard really influences conduct,

and undoubtedly prevents many lies or thefts from taking place, to which we should otherwise be tempted. On the other hand, a large number of people at the present time state, in words, that they believe in the Christian principle of morality, which, among other things, teaches that material wealth is either a positively bad thing or a thing of no value in itself at all, and that the pursuit of wealth is not a worthy object. But, in fact, these ideas exercise no influence at all on the vast majority of us. No one is ashamed of wanting to be rich or of doing everything in his power to become so, as long as he does not infringe certain other moral principles, like those mentioned above, which really are accepted. Nor does it ever occur to us to condemn other people for wanting to be rich. It is clear that the notion that riches are bad or worthless is not really in any sense among the accepted moral ideas of the present time, even though we sometimes say that it is.

I conclude, then, that the gap between moral principles and moral practice must always exist. And though, no doubt, it varies in extent from one age or one country to the other, the variations only occur between relatively narrow limits. Not much, therefore, in the way of moral progress can be looked for in this direction. And we return to our accepted moral standards. These, as we have seen, undoubtedly change. How are we to tell whether and when the changes are changes for the better?

I do not suppose that anyone would maintain that there is continuous progress, and that all changes are necessarily for the better. Yet some of the arguments against the reality of moral progress to be met with in popular writings seem to assume that that is the position which has to be refuted. It is very easy to pick out certain periods in certain places and show that the current moral ideas there were in some respects more like our own than the current moral ideas of some intervening period. No doubt King Hammurabi's

legal code was, tried by our standards, on many points more enlightened than the English law a century or more ago. But this appeal to isolated instances is very superficial. It would apply equally to our scientific knowledge and our control of the material world. Scientific knowledge has been acquired and lost again in some dark age. And useful arts have been learnt and disappeared. Yet no one would doubt that there has been progress in scientific discovery and invention. We have to deal with more serious difficulties than that. I can only suggest a few of them here.

(1) I think that the suggestion that moral progress must be sought for in the realm of accepted standards and current ideas would be distasteful to some people because it might seem to throw doubt on the reality of anything that could properly be called morality at all. Others, no doubt, would welcome it for the same reason. For it might seem to lend support to the view that the whole idea of morality was merely a set of conventions, accepted just because they were customary, changing just as fashions in dress or social behaviour change, and with no more authority than these. We must dispose of this at the outset, if we are to go on talking about moral progress at all.

It I were asked to prove that morality was not merely custom and convention, I confess that I should decline the challenge. I cannot, that is to say, offer any proof which must inevitably and absolutely convince anyone with the certainty and self-evidence of, say, the simple propositions of arithmetic. Even with these, as a matter of fact, if anyone chooses to say that he doesn't see them and doesn't believe them, we are helpless. "The single resolute doubter," to whom appeal has sometimes been made, can never really be refuted in this or any other branch of thought. At any rate, in our thinking about moral questions, all that we can do is to examine carefully such evidence as we can find and decide, each of us for himself, in which direction we think it

points. And in this respect our thinking about morality is no worse off than our thinking about any other question to do with human beings. Certainly our opponents will be in just the same plight as ourselves. It sometimes seems to be supposed that, because we cannot prove with mathematical certainty that morality is not merely custom, it is thereby proved that it is. At any rate, that is about all the argument that we generally get for this point of view. But the single resolute doubter would be just as awkward a customer for those who do not believe in morality as for those who do.

With this proviso, I will summarize briefly the considerations which seem to me to give an overwhelming degree of probability to the view that morality is not merely custom or convention. In the first place, I am influenced by my own experience, which seems, as far as I can judge, to be shared by a large number of other people. I seem to myself, when I judge anything to be right or wrong, to be judging something about it entirely different from judging that it is the custom or not the custom. I may not be clear about all that is implied by calling something right or wrong. I may recognize that what particular things I believe to be right or wrong is sometimes influenced by custom. But that is an entirely different thing from recognizing that the rightness or wrongness, the quality that I ascribed to these things, merely meant customary or not customary. When I say that I have been accustomed to regard such-and-such an action as right, I do not mean that I have been accustomed to regard it as customary. So my own experience seems to tell me that right and customary are different things. And I want much better reasons than any I have ever seen given for doubting the testimony of my experience. At any rate, the burden of proof seems to me to lie with those who would have me doubt it. And I cannot find that they are very well prepared to shoulder this burden.

Further, if morality is merely custom, it seems impossible to see how anyone could ever come to criticize or challenge a custom on moral grounds. Yet that this is not infrequently done, and sometimes done successfully, seems beyond dispute. Finally, though I attach less importance to this argument than the others, we may ask how the custom of thinking of some things as right and some as wrong ever arose in the first place. It is like the old tag from the eighteenth-century controversy. "Religion was merely the invention of the priests." "Then who invented priests?" This seems to be less decisive than the other arguments, because there are undoubted cases of fashions and customs arising from nowhere or from purely trivial and accidental causes. But such cases, on inspection, seem to differ in character, to be far less tenacious, and less widely spread than the custom of judging things to be right and wrong, or good and bad. So that this argument does seem to add to the probability created by the others, though it would be less decisive by itself.

2. There is another, but closely allied, set of difficulties in connection with this matter of the conventions of morality. There are many who, while not denying the existence of morality, would feel that, so far as it was a matter of convention, it was not really morality at all. If, therefore, the only kind of progress to be looked for is in the accepted moral standards, this is not really moral progress. That must be looked for, if anywhere, deep in our inmost nature, apart from all influence of custom or environment. And when they look for it here, they seem to despair of finding it. "The accepted ideas of morality may change from time to time," they tell us. "But we don't change. We don't get any more moral by nature. Take anyone of us and put us in a different environment and among a different set of ideas, and we shall behave according to those ideas. Human nature doesn't change.

It is only the framework of custom and convention which changes." I saw not long ago a letter in a daily paper on the subject of cruelty to animals and the alleged superiority of our own country over certain other countries in this respect. And the writer concluded his argument: "So we see that our supposed humanity is merely"—note the "merely"—"a matter of training and environment, and not due to any innate moral superiority." I remember, too, a cynical Italian friend of mine speaking scornfully of the objections that some English people feel to bull-fighting, and characterizing it as "a mere veneer," on the ground that, according to him, English people who lived in Spain often became as enthusiastic spectators of bull-fights as the Spaniards.

It is interesting to see how the ancient distinction between the natural and the conventional reappears so continuously. It began in the fifth century before Christ, and the fallacies that it rests on were exposed by Plato and Aristotle. But it was never completely laid to rest. It reappears, for instance, in the seventeenth century with Hobbes, and again, in a different form, in the myth of the "noble savage" of the eighteenth century. We see the kind of form that it adopts to-day. To the quotations just given we may add the remarks so frequently heard during or just after the war. In war, we were often told, all our acquired conventions of behaviour fell away, and we got the real man, human nature as it really is, stripped of the trappings of civilization in its naked savagery. It was far from true, of course, even in war. But the important question to ask is, why the qualities that came out in war should be regarded as "real" or "natural," any more than the qualities that developed in peace.

The idea that still seems at the back of the minds of people who talk like this is that all the restraints which customs and conventions involve are something imposed on us from outside, not expressions of our own "real"

nature. In our heart of hearts, our "real" natural selves, we really want to be free of them and follow our impulses unchecked. Yet such an idea is extraordinarily opposed to all the available evidence. If we look at the history of the human race, as far as we can know it, we should rather conclude that the vast majority of mankind yearns for such restraints. We hug our chains. One of our strongest natural impulses is to build up a system of customs and conventions and accepted ideas to control our conduct. So the most natural man is the most completely conventional man. It requires a tremendous and continual effort to free ourselves from the control of conventions. And such an effort is rarely successful except within very narrow limits.

If we ever do succeed in getting rid of a set of conventions on a large scale, it is only to replace them by others. To anyone who knows what the war was really like, it must seem particularly laughable to represent it as an outburst of unrestrained natural impulses freed at last from artificial controls. There can have been few conditions in which so many impulses had to be so frequently restrained and so many other impulses artificially imposed. To take but one instance, we know that it was the constant occupation of those in charge of training troops to keep up the aggressive spirit of the Army. And there was a vast apparatus of training and propaganda devoted to the end of whipping up our hatred of the enemy beyond what we should have felt if left to ourselves. It is the same thing in other connections. No doubt the Spanish youth has to learn to repress any feelings of pity for the sufferings of animals in the bull-ring that might arise in his mind. The force of public opinion and the unpopularity he would incur by expressing them would certainly be normally sufficient to drive them out of his mind. Similarly, the vendetta or family feud in countries in which it is practised is kept alive quite as much by the

force of public opinion as by the "natural" impulses of those who practise it. I have been told that in one of the last trials for a vendetta murder in Corsica, in which a perfectly inoffensive man was killed in repayment of some wrong supposed to have been done by his father, the murderer pleaded that he had been driven to it by the jeers of his fellow-villagers at his first impulse to leave things alone. Again, it is obvious and familiar how much sexual laxity is due, in part at any rate, to the pressure of public opinion in circles in which it is considered the right thing. Even in the milder form of obscene conversation we know how often we simulate an enjoyment of it that we do not feel for fear of being thought prudish and easily shocked, or for fear of being told that our knowledge of modern psychology is not up to date, and that we are suffering from Victorian repressions. We are afraid even to mention the obvious truth that an exclusive attention to any one subject can become extremely boring. Altogether, it is clear that there is quite as much conventional immorality as conventional morality. And the "natural" man is still far to seek.

We shall not find him until we realize that he is not a different person from the conventional man. Convention is natural, as we have seen. Further, not only is convention in general natural, but each particular convention of any importance is natural, or has something natural about it. It seems to me extraordinarily improbable that any convention, any idea about what was or was not to be done in human conduct, could ever become widely spread or be held for more than a very short time unless it was based on some impulse or felt need innate in human beings. Without that, it could never get accepted for long or by many people at all.

The situation as I picture it is something like this. We all have a number of different tendencies innate in us. That is the raw material out of which the actual

“we’s” are made. But, considered by themselves, these natural tendencies are an abstraction, hardly more than bare potentialities, the embryo of human nature. The actual way in which they work is the result of many influences that come to bear on us. These influences give a greater or lesser degree of organization to these tendencies. They strengthen some at the expense of others. Sometimes they may bring into actual working potentialities that we should never have realized to exist in ourselves otherwise. Conversely, they may so shut off the openings for development of other potentialities that we fail to realize that we have them. Our actual, real selves are not these abstract potentialities, but the potentialities as developed by these various influences. And among these influences probably the greatest and most important are our conventions, the ideas of what is or is not to be done which we find current about us.

That, perhaps, will help us to answer the well-worn question, Can human nature be changed? The original tendencies, probably, do not change to any great extent. At any rate, there is no evidence that they do. But the ways in which they are developed and organized can and do change enormously. These changes, it is true, only arise from the development of the tendencies already there. There is, therefore, a certain limit to the possibilities of change. Human nature is not infinitely plastic. But we do not know how plastic it is. We are beginning, I think, to find out something about some of the tendencies which will always be there and must always be taken into account. And I can conceive no more fascinating and no more valuable study. But we have still advanced a very little way in this, much less far than many people think. We know very little about what can be made of these tendencies, the different forms in which they might be trained to express themselves. And we cannot speak with any certainty about what further potentialities

there may or may not be in us which might be brought out by favourable influences.

We see, then, if this argument is correct, that there is no reason to despise convention. What we are made by convention is just as much our real nature as anything else about us. And we may be quite satisfied of the reality of moral progress if we can find that there is any progress in our conventions or our accepted ideas of right and wrong.

(3) We must now face a third difficulty. How are we going to judge between one set of conventions and another? As I have described it, it looks as if all conventions came about in very much the same way. Further, our own ideas will be largely the result of the conventions among which we live. How are we going to get outside these influences, and judge whether one set of accepted ideas of right and wrong is nearer the truth than others? We must attempt something of the kind if we are to decide whether the changes in moral ideas are to be called progress or not.

We may ignore the conventions of thought and action which make no claim to any moral basis, those, for instance, which base their claim on being up to date and in the latest fashion. On the other hand, we must not commit the *naïveté* of supposing that all those who do not use, or even repudiate the use of, the accepted moral terms like right and wrong are therefore not to be regarded as actuated by moral considerations. Mr. Bertrand Russell, for instance, who, to judge by his writings, sometimes likes to think of himself as the type of the cold, hard, scientific intellect, emancipated from all the prejudices of morality, in reality makes much more the impression of having the soul of a prophet, with all the reforming zeal and the readiness to condemn characteristic of that type. And many lesser men are shy of speaking of right or wrong, or good or bad, and prefer to use some colloquial substitute, fashionable at the moment. But the attitude

that these express is exactly the same. When we say, "That's a rotten thing to do," or whatever the fashionable phrase of the moment is, we mean no more nor less than that it is a bad or wrong action. At any rate, it is clear that there are quite enough conventions of morality to occupy our attention. On what ground, if any, are we going to pronounce one to be morally superior to the other ?

Here, perhaps, the amateur of definitions will think that I cannot escape his demand to supply him with a clear definition of what I mean by moral. Yet I think I can evade him once more. And to explain why I must give, briefly and dogmatically, my general view of the nature of our thinking about morality.

As I see it, human beings in all ages have had, or thought they had, glimpses of certain properties which human actions and characters, and perhaps other things as well, seemed to possess. They indicated these by terms like right and wrong, good and bad, or the equivalents in other languages. They have never been more than glimpses, and sometimes different people's glimpses seem to have given them rather different impressions of the facts concerned. But the impressions always had something in common. They would all agree that the positive moral property was, in some way, a reason for pursuing those things in which it was present, and the negative moral property a reason for avoidance. And they would agree that a reason of this order stood somehow on a different footing from other possible reasons, a difference which we can best express by saying that it claimed a special degree of authority. I think, too, though the impressions here seem more confused, that they would all agree in ascribing some sort of universality to the moral fact. Its claim would not be regarded as a private claim on one individual alone. We say, "What's right for one person is right for another." But that is expressing it more definitely than the first glimpses

of this feature would allow. Then it is clear that the moral reason for doing something is not identical with simply and directly desiring to do it, whatever the relations between the two may turn out to be. On the other hand, it does seem part of all the impressions of the moral facts that a certain attitude, which at any rate contains emotional elements, is closely connected with our belief in their presence in any particular case. That is what we call in our language the attitude of approval or disapproval. These feelings are hard to analyse, and perhaps they contain some different elements in different cases. But there seems to be always a core which is recognizably identical in all cases.

These seem to me the chief marks of identification in which all impressions of the moral facts are agreed. But, of course, it does not amount to a complete description or definition. To work out, as far as possible, such a description or definition is the task of moral philosophy. And a long and difficult task it is, which can never be completed with absolute certainty. Some have found it so difficult that they have preferred to say that there are no facts there, that there is nothing in reality which possesses these marks of identification, and that the supposed glimpses were a mere illusion. But that seems to me extraordinarily improbable, and I have never seen any argument of serious weight in support of it. So I will ask to be allowed to assume for the purpose of the present discussion that there is really something there, and that there are such facts as right and wrong, or good and bad. But to define them, to say what they are, beyond these few hints would involve developing a whole system of moral philosophy, which would demand at least twenty lectures of this length before even the outlines were sketched.

Fortunately for the human race, however, it is not necessary to work out a complete system of moral philosophy before we can make moral judgements about particular things. Our marks of identification

are sufficient to enable us to arrive at some view about what things are good and what bad before we know the full nature of the facts which the words "good" and "bad" indicate. Of course, in most of our conduct we act on views about what is right and wrong which have already been arrived at and embodied in the conventions of our time. And that is quite natural and proper. But in the present discussion we have to put ourselves at the point of view which tries, for a moment, to stand outside these and judge them in the light of conclusions arrived at by our own thinking. And in this investigation we work with very much the same methods of thought and use the same evidence as in the more purely philosophical task of trying to decide what the general nature of the properties, rightness and wrongness, is. What is the evidence that we can use as the basis of our conclusions ?

Well, of course, the moral conventions, our own and other people's, form an important part of our evidence. It might be thought that we could do little with them without a standard, derived from some other source, by which to judge them. But at least we could see whether any one set of conventions was consistent with itself. If we find that it condemns one set of actions and approves another, which on the closest investigation appears to be of precisely the same general type as the first, we shall be justified in suspecting that there is something wrong. A good instance of this can be found in the attitude adopted towards national movements. When a national group within a state claims its freedom and rises up in support of it, public opinion in other countries often approves of the rising as of a nation rightly struggling to be free, and condemns the repression of it as tyrannical and oppressive. But when one of these countries finds itself in its turn faced by a national uprising, its public opinion will often condemn this as treachery and

disloyalty, and approve the justifiable severity of its own methods of repression. Of course, there are sometimes real differences between the different cases. But as the phenomenon is so general, and as almost every country has at some time condemned a rising against itself or its allies, and approved risings against other countries, particularly those with which its relations are not friendly, we are justified in supposing that there is some self-contradiction here.

Following on from this, we might find, on examining a large number of different conventions at different times and different places, that there seemed to be certain underlying ideas at the back of most or all of them. But some might show a much clearer realization of them and take them much more seriously than others. We should probably be justified in saying that these showed a higher stage of development, unless we found that the greater attention to one feature of this kind was simply attained by a correspondingly greater neglect of some other equally essential feature.

Finally, something might be learned by observing the effects of a contact between two different civilizations with different standards and conventions. Sometimes, when this occurs, the one group seems to recognize almost immediately that the other group represents a higher type than its own. Of course, this evidence must be used with great caution. It would be very rash to suppose that the conventions which survive are necessarily, in all circumstances, the best. But if a convention or set of conventions goes down at once, as soon as it comes into contact with other ideas, there is probably something wrong with it. Westermarck tells us how often the approval of cannibalism disappears almost immediately when the tribes which practise it come into contact with another civilization, before there is any question of a forcible suppression of it.

But we cannot remain content with classifying and analysing various moral conventions, as if they

were natural objects emotionally indifferent to us. Our own moral attitude has to come into consideration. Many people, perhaps, would claim that they judged of right and wrong by their own inner light. They would say that they feel that this or that was right or wrong, or that they know it instinctively or intuitively, or any other of the ambiguous phrases that are intended to convey the certainty of direct acquaintance. I believe that these phrases express an important fact. It seems to me as certain as anything in this matter can be that there is such a thing as first-hand moral experience. This is the origin and foundation of all moral conventions and all theories of ethics. But I am much less certain of the forms it takes and the way in which it works. It is an experience which badly needs further analysis. And, in default of this, anything that I have to say about it can only be put forward tentatively and provisionally.

I think that we should do well to be very cautious about appealing too readily to our own first-hand moral experience. I do not believe that such experience is a very common thing. I should imagine that it has come to most of us at one time or another. But it comes comparatively rarely. Perhaps that is what distinguishes the great moral reformers from the rest of us, that they are constantly and continuously able to see a light that only comes in occasional flashes to the great majority. Again, it is possible to confuse it with other experiences. Thus, the shock of being faced with an unaccustomed or unpopular idea may often masquerade as real moral disapproval. It is true that the two can probably be distinguished without difficulty by a little resolute introspective examination. But many people do not like the effort of examining themselves thus. Finally, it is often very easy to be mistaken about the situation which arouses this experience. The action which we approve or condemn may be in reality very different from what we think

it, though if it had been as we thought it our approval or condemnation would have been justified. Perhaps that is why it is in general much safer to confine our judgements to our own actions, where we have at least much greater knowledge of the nature of the action than we can have of other people's.

There is another point, important if it is true. It seems to me that this first-hand moral experience only comes to us in connexion with a particular situation. Its typical form is the conviction that this particular action here and now in these circumstances is or would be right or wrong. We try, rightly, to generalize it afterwards, to draw some rule from it that will apply to other cases. But in this we are going beyond the immediate experience and drawing inferences from it. And the certainty diminishes accordingly.

But, with all qualifications, first-hand moral experience is a factor of great importance. It is the basis on which we build a good deal of our own moral principles. And it is at the bottom of the moral conventions of any age or group. We might perhaps describe moral conventions as an erection of interpretation and inference on the foundations of moral experience, held together in relative permanence by the cement of custom and habit, though the metaphor ought to be modified to allow for the fact that the solidifying power of custom generally modifies the shape in some degree. But our moral experience also provides some help in the criticism and evaluation of moral conventions. We can compare our interpretations and generalizations of our particular experiences with those expressed in the customary standards of the age we are considering. Conversely, when the general rules laid down by some set of conventions are applied to a particular case, we may have a direct moral experience which drives us to differ from the conventions. I suppose that is how movements of revolt and reform begin. People have

been taking certain rules of right and wrong for granted. And then one day someone is faced with a concrete situation in which the thought of applying these ideas or the actual spectacle of these ideas being applied awakens him with a shock, and he says to himself: "No, this won't do. This cannot be right." We must remember also that it is possible for such revolts to be carried too far, and for a whole set of ideas to be condemned unjustifiably because they happen to have been associated with one which is in conflict with the reformer's first-hand experience.

I must not delay too long over this aspect of the problem. So I will only just mention the help that we can get from other people's evidence, particularly the great thinkers and moralists. Some of them are helpful because of their own strong moral sense, some because of their special sensitiveness to the moral atmosphere around them which makes them good interpreters of the current ideas of their time, and some because of their reasoning powers which enable them to see, more clearly than most of us, just what general conclusions can be drawn from the evidence. A few, like Plato, seem to combine all these qualifications. In general, I would say that any moral idea which is or has been widely held, and any idea which is seriously maintained by a serious moral thinker, has to be taken into account as evidence. If we cannot accept it, we must at least be able to explain how it has come to be held. I must pass over, too, several auxiliary studies which may at times help us in our search.

And so we come back to our original question, Is moral progress a reality? Can we, on the basis of this evidence, say with any confidence that accepted moral standards improve? I shall hardly be expected at this stage to construct a complete set of standards by which to measure all the differences between the morality of one age and the morality of another, nor

to examine the whole history of the world in the light of them. But I will suggest one or two points which seem to me to emerge pretty clearly from the consideration which we have mentioned.

Thus, there is one general principle which seems to be implied in a great many of the most widely-accepted moral judgements, and which has been stated explicitly, in one form or another, by many of those who have thought most deeply on moral questions. That is, the principle formulated by Kant in his second maxim, that we ought always to treat human beings as ends, never merely as means. It is the same idea which was expressed, less successfully, by Bentham when he said that everyone was to count for one, and no one for more than one, in the distribution of happiness. And I suppose that the good Christian would express the same idea by saying that one man's soul is just as well worth saving as another's.

It seems to me clear beyond a doubt that in modern times this principle has attained a much clearer recognition and a greater influence on our accepted ideas of right conduct. Most of the great movements which mark the last hundred years or so—the abolition of slavery, the emancipation of women, the increased care for the interests of children, and, in general, any movement which takes the form of a protest against the idea of any group or class being regarded as existing simply for the sake of some other group or class—are expressions of this principle. And it shows itself in many other slighter and subtler ways. It is still far from being recognized universally in all relations of life. And in the application to particular cases we may have made mistakes in detail. But these can be corrected by experience as we go along. And the general tendency marks a clear moral advance.

“Ah!” our professional pessimist would say, “this may be all right. But why pick out this particular moment as a test of progress? What guarantee have

you that there may not be a reaction against all this in a century or so, or indeed to-morrow, and we may relapse into barbarism again. That is what generally happens. Look at the fate of the Babylonian, Minoan, Egyptian, Greek, Roman, and Byzantine civilizations ! Look at Mexico ! Look at Peru ! ” and so on and so on. There is truth, of course, in the reminder. But to me the most significant fact is, not that human beings relapse into barbarism from time to time, but that they generally climb out of it again. It would be absurd to take the occasional reaction as being the real and important fact and neglect the long process of rebuilding order and civilization which seems to have occupied our race for at least as much of our time as the other. Certainly, if anyone held that we had simply to sit still and we should automatically improve, the pessimist’s warning would be valuable. But it does nothing to weaken the belief, which I hold that the facts point to, that there is a natural tendency in us which makes for moral progress. It simply points out, what is undoubtedly true, that this cannot work under all possible conditions, but needs favourable circumstances, or perhaps rather the avoidance of certain particularly strong unfavourable circumstances.

But are there any grounds for thinking that the circumstances are any more likely to be favourable than unfavourable as time goes on ? I think there are certain grounds for hope, though none for excessive confidence. Probably more people throughout the world than at any previous time are interested in finding out what the favourable circumstances are, though we are only at the beginning of the task yet. And, with increased knowledge, we are also finding out that to some degree these circumstances are within our control. The state of civilization, for instance, has in some ways been affected by material conditions, such as the food supply, or the prevalence of certain enfeebling diseases. And over them our control is

increasing all the time. Then, again, many or most of the relapses into barbarism have been the result of the unexpected impact of other races of lower standards. That, certainly, becomes less likely, with the increase of knowledge of different races and the increase of contact between them.

But I would not exaggerate the grounds for optimism. Our knowledge and control is still imperfect, and probably will always remain so, though it may improve greatly on the present conditions. One factor in particular, which seems to me of the first importance, is one about which it is most difficult to prophesy. That is the emergence of individuals of exceptional power who will exercise an influence one way or the other. I have already spoken of the influence of great moral reformers. But the other possibility is equally present. A man of commanding personality and powers of leadership may emerge who will appeal with particular force to some baser motives in us. It is not difficult to glorify some of our lower passions till they begin to masquerade as moral principles in our minds. I can think of at least two political leaders in different countries in modern times who have had influence in this direction, and many more who have tried to attain it without success.

The same kind of influence, on a much smaller scale, is exercised for good or bad by countless individuals, who stand out just enough from those who immediately surround them to have such influence on them. And the way in which this will work is the most impossible to foresee of anything. They are themselves, of course, largely the product of the surrounding influences which are common to their whole society. But the little bit extra which they add of their own may be the result of such innumerable different causes that it is not a calculable factor. The difference that each one makes may be infinitesimal in amount. But the sum of all their contributions may be

considerable. So that the results that these may produce cannot be foreseen.

If this is true, it would seem that there is nothing inevitable about moral progress, or about moral retrogression, if by inevitable we mean something that cannot be affected by the action of individuals. But there does appear to be a natural tendency in the direction of progress. And the production of the conditions which favour the development of this tendency depends to a considerable and increasing degree on our own wills and our own efforts. With this we may well rest content.

1931.



## KANT'S FIRST MORAL PRINCIPLE

*Act only on that maxim whereby thou canst at the same time will that it should become a universal law*

KANT claims, more than once, that his moral theory is based firmly on our common notions of morality. And there can be little doubt that, in his idea of morality as a system of universal rules, his claim is justified. Of course, merely in formulating what is ordinarily assumed without being stated, he is going some way beyond these common notions. But it is clear, beyond question, that the very idea of right and wrong commonly held includes some notion of generality or universality.

The evidence for this is manifold. We can see how quickly and naturally we react with approval to popular moral dicta of the type of "What is sauce for the goose is sauce for the gander," or, less colloquially, "What is right for one person must be right for another." Again, if asked why a particular action is right or wrong, one of our most natural replies is to state its general nature. "Why is that wrong?" "Because it's telling a lie." We are always inclined to think of right or wrong as expressible in a series of general rules about various classes of action. In other words, we naturally tend to think of the moral law as analogous to the civil law, which in its nature consists of general rules and does not admit of exceptions. Indeed, the development of codes of law is an expression of this tendency. It would be erroneous to speak as if our tendency to think of the moral law as a system of rules arose from previous acquaintance with the civil law and an application of our knowledge of that to the moral law. On the contrary, the development of a civil code at all is an expression of

this notion of what a moral law ought to be. In the earlier stages the moral law and the civil law are distinguished only imperfectly or not at all.

We could find a good instance of the working of this tendency in Hobbes' view of the social contract. It is a familiar and unanswerable criticism against Hobbes that, while he pretends to base his theory on our natural instinctive tendencies, in fact he argues throughout on the unrealized assumption that we have no right to act in this or that way (*e.g.* in resisting the sovereign) whatever our natural tendencies incline us to, and however exceptional the circumstances. And his ground for this is that it would destroy the efficacy of the law altogether if we once began to admit exceptions. Arguments on these general lines must be familiar to everyone in daily discussion. We may, perhaps, group them together as the where-are-you-going-to-draw-the-line class of arguments. Their frequency bears witness to our strong feeling of the imperative need for absolute and universal moral rules, if morality is to be anything at all.

Such a general assumption must be taken account of with great care by the moral philosopher. He is not bound to accept it without criticism at its face value. But he must at least be able to show that he has understood it and explained it. He has to disentangle the different threads of thought that are combined in these and similar arguments, and decide how much of them must be retained in a systematic account.

Kant, of course, regarded this notion of the universality of the moral law as so essential that it became for him not only *a* feature of morality but *the* feature, from which everything else that we could say about it followed. It would be going too far to say that he made this capacity for being universalized his definition of the rightness of an action. At any rate, he does not regard it as a complete formulation of the moral characteristic: it requires to be developed further by the second and third principles. But he does regard it

as an essential feature of this characteristic of rightness, and of this alone. There can be little doubt that he thought they mutually involved each other, so that we can say not only "All right actions are capable of being universalized," but also "All actions capable of being universalized are right." Doubts have been expressed on this point, and it has been suggested that it was merely the first proposition that he was definitely committed to. This would make it a negative test of right action only: and it is true that in some of his formulations of the principle Kant seems to emphasize this side of it more particularly (*e.g.*<sup>1</sup> p. 18, "We are never to act otherwise than, etc."). But the whole argument and the applications of the principle make it clear that in fact he thought that both propositions were true, and that the principle was both a positive and a negative test of right action. Otherwise it could hardly have the practical efficacy that he claims for it.

For there can be little doubt that he regarded it not only as a theoretical statement of a general principle, but also as a practical criterion which could be applied without great difficulty to decide what was right or wrong in any particular case. There are too many phrases like this (p. 20), "Here it would be easy to show how, with this compass in hand, men are well able to distinguish, in every case that occurs, what is good, what bad," for there to be any real doubt about the matter. And it is this point in his theory which has been the object of most general attack. The notion of the test of universalization as a practical criterion has been unanimously rejected by the critics, and doubtless with good reason. The arguments against it are probably familiar to every student in the elementary stages of moral philosophy. We have all been introduced very early to the figure of the innocent man pursued by murderers whose life can be saved by a timely lie. There is no need to work over this well-trodden ground again.

<sup>1</sup> References throughout to Abbott's translation.

But it is important to note that the usual line of refutation really rests on considerations not so much about the nature of rightness or wrongness as about the nature of an action. Kant's view, of course, implies that actions can be classified into species by considering only some of their characteristics and neglecting others. And it implies further that, when so classified, the predicates right or wrong can be attached to certain classes. He assumes, that is to say, that the characteristics in which the members of a class differ from one another can be ignored, not only for convenience of classification, but from the point of view of moral judgements. And he assumes, further, that it is possible to know before an actual case occurs what characteristics can be thus ignored.

It has often and quite rightly been pointed out that such classification of actions into groups, such as telling lies, committing murders and so on, is really only a rough practical measure. Which common facts we take as the basis of classification and which distinguishing facts we ignore depends on the particular purposes for which we require the classification. And for the purposes of moral judgements we cannot tell beforehand for all possible circumstances what characteristics will be irrelevant. When we reject Kant's view about the absolute, invariable wrongness of telling a lie even to save an innocent life, it is not, strictly speaking, because we believe that telling a lie is sometimes right and sometimes wrong, but because we do not believe that the action is rightly described simply as telling a lie and nothing more. It is really a different kind of action from the kind of telling lies that we rightly condemn.

Now all this line of criticism, perfectly sound as far as it goes, does little to throw doubt on the fundamental principles that Kant was trying to express. At most it warns us against Kant's exaggeration of the practical efficacy of his own principle, which he carried to the extent of making it an absolutely infallible guide in

practice. But it does not affect its truth, nor, even, does it deprive it of all value as a practical guide. Even if we admit the truth of the sarcasm that, to apply the principle in practice, we need a fresh general rule for each particular action, we have not dispensed either of its truth or of its practical value.

Let us see what we have left if we do admit that we cannot say beforehand what characteristics or circumstances of an action are relevant to its rightness or wrongness. We can keep the conviction that the rightness or wrongness of any action depends on some or all of its general characteristics. And these general characteristics can, in principle at any rate, be equally well characteristics of other actions. It is in virtue of some universal property or properties that an act is right or wrong, not in virtue of its being this particular act and no other. Whatever characteristics may be relevant to its moral value, its pure particularity or individuality or uniqueness is not relevant.

What gives a particular act its particularity is a metaphysical question which need not be discussed here. It might be suggested that it was its position in space and time, or perhaps we should say in space-time. And certainly it would be hard to imagine anyone contending that mere position in space and time had by itself any relevance to the rightness or wrongness of an action. We should never suggest, for instance, that a mere change in the place or the time of an action, irrespective of all other circumstances, could possibly change it from a right action to a wrong action or *vice versa*. In that sense, "once right, always right" seems as certain a deliverance of our moral consciousness as it is possible to have, so certain, in fact, that it is of comparatively little interest.

What is of much greater interest is the question of the relevance of the particularity and uniqueness, not of the action, but of the agent. And, on this point, the Kantian principle asserts that the bare fact that it is I

who am acting, not you or anyone else, apart from the general characteristics of the action, is not relevant to its rightness or wrongness. "But who said it was?" I can imagine an objector asking. Probably no one as a matter of explicit doctrine. But in practice, on the other hand, very many people on very many occasions have acted as if it were. It is a constant and deep-rooted tendency in human beings to apply different principles and different standards of judgement to their own conduct from those which they apply to the conduct of others. And it is this deep-rooted tendency that Kant's principle warns us against and condemns.

His warning takes the form of the statement that an essential feature of wrong-doing is making an exception in favour of oneself. He asserts that, when doing wrong, we do not really will that other people should act in the same way. We may feel hesitation in accepting this as an absolute, universal, necessary truth about wrong-doing, known *a priori*. But as a piece of psychological observation, of generalization from experience, it seems a very shrewd and well-observed remark. It is certainly a feature of a very numerous species of wrong actions. The practical procedure that it suggests is that, when any doubt is suggested about the rightness or wrongness of an action, we should ask ourselves the question, Should I choose that anyone else in the same circumstances should act in the same way? Of course, to ask such a question is not to answer it. And even to bring ourselves to ask the question is not a simple or easy thing. Further, it is probably true that this is not the only question that needs to be asked. Particularly, in cases of genuine difference of opinion on morality, it gives us no help; indeed, it is just in such cases that Kant's arguments in general seem least helpful. But still the fact remains that if we could always genuinely and honestly ask ourselves such a question our conduct would unquestionably be considerably modified; we should

do many things that we have left undone, and leave undone many things that we have done.

Thus understood, the principle makes no assertion about which circumstances or characteristics of the action are relevant and which may be ignored. For the purposes of applying it in practice we may imagine all the circumstances to be precisely the same, except that it is another individual who is acting. That is the one feature of the occasion that should be irrelevant to our decision. And it is a very influential feature, as we have seen, and one which it is much more difficult to disregard as irrelevant than we might think at first sight. If we succeed in doing this we may expect to find that the question what other features of the situation may be disregarded as irrelevant becomes much easier to answer than it did before, though doubtless some doubts and difficulties may remain in some cases.

Among these difficulties may, on occasions, be the problem of how far the feelings and emotions of the agent may be taken into account in deciding how he ought to act. It is worth while saying a word about this because Dr. Broad, in his *Five Types of Ethical Theory*, seems to take Kant's principle to mean that the feelings of the agent must never be taken into account in moral decisions, and he bases a criticism of Kant on this. I am not sure how far the particular instance he gives would be accepted by Kant as, properly speaking, a moral problem at all. Still, there can be no doubt that on any theory there may be occasions on which the feelings of the agent are relevant to a moral decision. But I can find nothing in Kant's principle, as I have understood it, which is incompatible with a recognition of this. When I ask myself, Should I will another person in these circumstances to act like that? there is no difficulty about imagining the other person as having similar feelings to mine, as well as being in the same external situation. Further, it seems clear that Kant did recognize that on occasions the agent's own feelings

should be taken into account in deciding what his duty is. What else than this is he doing when he writes (p. 15): "To secure one's own happiness is a duty, at least indirectly: for discontent with one's condition, under a pressure of many anxieties and amidst unsatisfied wants, might easily become a great temptation to transgression of duty"?

But it is important to see clearly in what sense it would be justifiable, on Kant's principle, to take one's feelings into account as relevant to a moral decision. It is allowable and even necessary to consider them as data, as part of the evidence on which we have to pronounce judgement. But our consideration of these data, our own feelings, as well as all the other evidence, must be absolutely rational and impartial and not controlled or influenced by these feelings in any way. The distinction is between taking our feelings into account as evidence, which is legitimate, and allowing our feelings to act as a controlling influence, determining the direction of our thinking and consequently the conclusion we come to, which is wrong. This distinction is important and is clear enough in principle, though not always easy to observe in practice.

To return to our main problem, what have we found, so far, that we can accept in Kant's account as thus interpreted? Less than he thought, no doubt. We cannot admit his claim to have stated with absolute *a priori* certainty the most essential characteristic of right action, in such a way that it would always be possible to recognize it whenever it was present. What he does seem to have done successfully is to state an essential feature, though not the only essential feature, of the moral judgement, something that we must always imply when we genuinely judge any action to be right. It must always be implied in such a judgement that we should will anyone else in the same circumstances to act in the same way.

Note how much that is really significant this tells us.

Kant is not saying merely that if I think that I ought to do this action, I must also believe that anyone else ought to do the same action in the same circumstances. That, no doubt, is implied. But he goes further. He does not merely take the moral judgement for granted and warn us against inconsistency in applying it. He goes some way in the analysis of this moral judgement. For he tells us that, in making it, not only do we imply that we should repeat it for a similar action of another person, but also that we should actually choose or will that any other person should act similarly in similar circumstances. If we did not choose or will this we could not be genuinely judging the action to be right. "If," he says, for instance (p. 42), "we attend to ourselves on occasion of any transgression of duty, we shall find that we in fact do not will that our maxim should be a universal law." This clearly goes further than the simple statement that what is right for one person is right for another. It tells us that we cannot really believe that an action is right for one person, particularly for ourselves, unless we can truly say that we should choose or decide that anyone else should act similarly. This is, of course, generally a hypothetical judgement, in the sense that it is rarely in our power to decide how another person shall act. But it is none the less capable of application by an effort of the imagination. And such an application, if truly carried out, would be fruitful in results.

Just because it gives us genuine fresh information about the implications of the moral judgement, the principle is less obvious than the simple statement that what we judge right for one we judge right for another. Yet I think that reflection shows that this attitude really is implied in any genuine judgement that a certain action is right. Further, I think we could say that we could not genuinely believe an action to be wrong if we could truly say that we should will or choose that everyone else in similar circumstances should perform

it. We might, of course, say that we thought it wrong, if we were merely echoing conventional judgements at second hand without thinking. But it would not be a genuine conviction.<sup>1</sup>

Now, if this is a correct analysis of the implications of the moral judgement, it is obviously an important service to thought to have arrived at it. But it is not the service that Kant thought he was performing. If there is one point on which he is anxious to insist above all others it is that his results must take the form of absolutely universal and necessary laws, known *a priori* without any element in them derived from experience. Yet it is clear that the conclusions with which we are presented now are based on experience and observation, of our own and other people's moral judgements. Further, when we apply these conclusions, when we ask, for instance, of any particular action, Should we will anyone else to act in the same way? the answer can only be found in our own experience. It does not present itself to us as a logical necessity, the opposite of which is unthinkable, but as a matter of fact. In fact, we should or should not will this.

But, in admitting this, we may claim that we are not really departing as far from Kant's practice as we are from his theory. For, whatever his intentions may have been, it can hardly be doubted that in fact his results are based throughout on experience. His protest against basing morality on particular examples refers only to the impossibility of discovering the moral ideal by generalizing from the behaviour of actual persons. He does not see that, in analysing "the universally received notions of morality," his work is bound to be very largely a matter of empirical observation

<sup>1</sup> Is not this the argument underlying the *Gorgias*? Callicles starts by posing as the absolutely non-moral man, moved solely by his own private desires of the moment and the pursuit of his own pleasure. But before long it becomes apparent that he is really willing a general order of things to exist, irrespective of his own pleasure. And he stands revealed as a moralist *malgré lui*, with standards and ideals of universal application, which have no necessary connection with what he would like or enjoy.

of how people actually do think about moral questions and what the content of our moral judgements really is.

We can see particularly clearly how dependent he is in fact on empirical observation when we consider his attempt to apply the test of universalization to particular kinds of behaviour. If he really wishes to keep it to the "bare form of law" without the admixture of any empirical element, the only kind of test that he has the right to apply is the purely logical possibility of universalizing the maxim, that is to say the absence of self-contradiction in its universal application. Yet he never succeeds in demonstrating the necessary self-contradiction in any of the actions that he condemns. At the most he gives us a demonstration of the physical impossibility of a principle being applied universally, based on knowledge which can only be empirical of how people would act in certain circumstances. Thus his argument (p. 115) that, if everyone stole deposits entrusted to them if they could do so safely, the result would be that there would be no more deposits, has no logical necessity about it. There is nothing unthinkable or self-contradictory in imagining people going on continually allowing themselves to be deceived and robbed over and over again. It is merely an empirical judgement based on knowledge of actual human nature that people would not in fact stand this for very long.

In some of his other instances this is even more obvious. In the imagined case (p. 41) of the society of people who, like the South Sea Islanders, let their talents rust and devote themselves to idleness and enjoyment, he has to appeal to a crude teleology which has no logical necessity at all. And in the imagined case that follows this, of the man who will not help others and is ready to do without help from them, all he can do is to suggest that the consequences of universal application of such a rule might be unpleasant to the man, and deprive him of something that he wanted. The contradiction, here, has nothing necessary about it.

It is not self-contradiction, but contradiction of some other desire that, human beings being what they are, a man will probably have. And if the man is prepared to sacrifice this desire, which is obviously perfectly possible, there is no contradiction anywhere at all.

To return to the main argument, we have so far accepted Kant's account as an analysis of the moral judgement which does justice to the demand for universality which seems to be implied in such judgement. It does this by insisting that the rightness or wrongness of the action is not affected by the particular person doing the action, in the sense described above. We have said nothing so far about the other characteristics of the action. In fact, we have rather proceeded on the assumption that any other characteristics of the action may be relevant to its moral quality, and that no single characteristic or group of characteristics is necessarily and always associated with rightness or wrongness. The result of such an assumption would be that there really would have to be a general law for each particular action if there were really to be laws at all. Yet is such a result quite satisfactory? Is there no more than this in the demand, which we have found so deep and widespread, for a real system of general rules of morality? We must go back and reconsider this question, even at the risk of having to traverse some very well-worn ground and to recall some very familiar arguments.

The belief in the possibility of universal moral rules depends, once more, on the assumption that certain general characteristics of action are necessarily connected with rightness or wrongness, so that actions in which these characteristics are found are always and necessarily right or wrong, irrespective of any other characteristics which the action may have. And, as thus stated, it seemed that the assumption must be rejected, because when we examined our moral consciousness a little more thoroughly, we could not find any such characteristics

in actions, considered simply as actions. As Plato would say, of all the just actions there is not one that might not appear as unjust, in certain circumstances. We can never feel safe in ignoring all other possible features of the action and its circumstances, and judging on one feature alone. To do that we should have to say that the one characteristic which, considered by itself, would be recognized as making the action right, could not possibly be found together with another characteristic, which had equal or greater claims to be recognized as making the action wrong. Yet it seems difficult even to imagine any such characteristics of actions that absolutely exclude the possibility of the action having other characteristics which counterbalance it morally. In fact, of course, we are constantly finding such characteristics together, like the characteristic of being a lie together with the characteristic of saving an innocent life. That is the conflict of duties. And if the general features of actions were absolutely necessarily connected with rightness or wrongness, we should be faced in such cases with an insoluble contradiction, like the irresistible force coming up against the immovable object.

I find that many, if not most, students of philosophy, when they first begin to see the inadequacy of the simple popular notion of morality as a system of universal rules approving or condemning absolutely certain classes of actions, tend to turn as the quickest and readiest way out to what we may call the Utilitarian solution. I use this word in the broadest sense as indicating any view which makes the morality of actions depend on their consequences or results. I am not confining it to views which make the sole relevant result the production of pleasure or pain. It would include, for instance, the doctrine of *Principia Ethica* which makes the morality of actions depend on the production of the greatest amount of an undefined and undefinable goodness.

Now there is no doubt that judging actions by their consequences is at present rather out of fashion in

philosophical circles. So it is perhaps necessary to emphasize what a strong case there is in favour of it. It, like the rival system of judging which we have just been considering, can find much support in our common notions about right and wrong. If we try to give a reason why an action is right or wrong we shall find ourselves, in ordinary conversation, arguing on the basis of its consequences perhaps as often as we find ourselves arguing on the basis of its general nature. We recognize, very naturally, that actions do have consequences, good or bad, and we readily admit that we cannot escape the moral responsibility for the natural results of our actions. To say that we acted in such-and-such a way without considering the consequences would generally be taken as a condemnation of our action. No action is absolutely isolated, a separate whole which can be judged entirely by itself.

It might be argued that this is true of many or most actions, but not of all. It would apply only to one class of actions, those which are good or bad simply as means. It would not apply to the other class, those actions which are good or bad or right or wrong in themselves. But, the Utilitarian would ask, are there really any such actions? In practice such a division into two classes breaks down. For any action of a kind which ordinarily we judge to be right or wrong in itself can on occasions pass over into the other class, and be judged by the consequences, if the consequences are serious enough. We can probably all imagine possible consequences of any kind of action which would seem to us an absolutely decisive and sufficient reason for doing or not doing such an action.

Further, Utilitarianism has the great advantage that it offers a solution of the difficulty of the apparent conflict of duties. It does not, of course, in itself answer the practical question in each particular case. But it tells us what the question is. It gives us an intelligible and applicable principle on which to work, and a basis for real discussion. We are not thrown back

on the assertion and counter-assertion of unproved and unprovable intuitions. Or at any rate, the appeal to them is postponed as long as possible.

Of course, it solves the problem of conflict of duties by showing that there is not really a conflict at all. And this to some may seem just its weakness. For they would urge that our moral experience makes it clear that there is a conflict. More generally, they would appeal to the fact that we do not in many cases judge an action right or wrong because of its consequences at all. The obligation to keep a promise made, for instance, does not appear to us as an obligation on any grounds of consequences.

I think that the Utilitarian would probably reply to this, with much force, that his opponent has no right to insist on his accepting without question every apparent deliverance of uncriticized moral experience. We must remember how little of our ordinary moral opinion is really the result of independent thinking and how much is influenced by custom and habit and the suggestion of accepted ideas. The most that can be demanded of him is that he should explain how such notions came to be held. This he is quite prepared to do.

His explanation runs on very familiar lines. He would say that certain types of action will, in fact, in most circumstances that are likely to occur, produce a balance of good. We get therefore into the habit of willing or approving actions of this kind without reference to the consequences, very often starting the habit under the influence of the accepted ideas amidst which we grow up. Indeed, he would probably say it is very desirable that this should be so. The desire for definite laws of conduct, that shrinking from allowing exceptions which is expressed in the where-are-you-going-to-draw-the-line argument, may not be defensible in principle, but it has a very sound psychological basis. It is certainly a *γενναῖον ψεῦδος*. An absolutely rational and unprejudiced thinker would doubtless be

right to ignore general rules and to think out the consequences in each particular case. But, apart from practical difficulties about the time this would take, most people have not strong enough heads to be trusted with such a method. It is such a difficult and delicate matter that it is particularly easy, in applying it, to be prejudiced by personal desires and emotions. It is advisable, therefore, for most of us to get into the habit of thinking in terms of general rules and to feel uneasy about breaking them.

I think there is more force in this argument than its modern critics are willing to allow. At any rate, the general warning against accepting too readily ordinary moral assumptions at their face value without criticism deserves to be borne in mind. We shall do well to remember how many of our ordinary assumptions come to us simply on the strength of accepted conventions. And though, no doubt, there is always some basis for the convention, it very often turns out to be something very different from what the convention, taken literally, says. Therefore, though doubtless we shall have to come to this at some point, we should be very slow to accept the statement that we do not, in fact, judge actions on those grounds, as a final and decisive proof that those are not the grounds on which they ought to be judged.

Still, when all this is recognized to the full, it remains very difficult to accept the account quite as it stands. For we are familiar with many obvious cases in which a course of action has become recognized as the usual means of attaining a good end, so that we get into the habit of following it, and then we are faced with unusual circumstances in which we have to follow some other course to attain the same end. There may be, for instance, some accepted method of treating a certain disease, which is in the great majority of cases successful. And yet in certain exceptional circumstances it may have to be abandoned in favour of another method. Similar occasions are familiar in handling educational problems.

In such cases the effort of breaking the habit is often difficult and unpleasant. But, once we have got over this difficulty, we have no further reason for dissatisfaction. If the result produced by the unusual method in the unusual circumstances is equally satisfactory, we do not feel that we have sacrificed anything by having had to use this method. Apart from the difficulty of breaking our habit, we have no reason to regret the unusual circumstances or to wish that they had been different. We are not left with a lingering feeling that there must be something wrong about them.

Yet in other cases our experience is very different. When, for instance, we have to tell a lie to avoid some great evil, we may feel without any doubt that in those circumstances we were bound to tell the lie, and we may have no shadow of remorse for our action. But we are left with, more than a lingering feeling, a very strong conviction that it was very regrettable that we had to do this. We feel that the circumstances that made it necessary must have been bad, and that we should have altered them if we could. We take this fact that we had to tell the lie as in itself a decisive proof that the circumstances must have been bad. The difference between telling the truth and lying is not merely a matter of statistics, in that the one produces the best results in the great majority of cases, as it is for the doctor or teacher who has to employ an unusual method in a small minority of cases. So that, in spite of all, it is very hard to believe that the difference between lying and not lying is merely a matter of finding the best means to an end in particular cases.

Dr. Ross would suggest meeting this difficulty by regarding certain classes of action, such as truth telling, as having always a *prima facie* rightness or a tendency to be right,<sup>1</sup> though a particular member of the class may in some circumstances not actually be right. This seems to me an admirable statement of the situation

<sup>1</sup> *The Right and the Good*, pp. 19-30

with which our ordinary moral notions present us. But I find it impossible to accept it as a final account. It appears to me to be merely stating the problem, not solving it. At any rate, I should feel very unwilling to accept his account unless every alternative had been absolutely proved untenable. As it stands, it presents us with too many ultimates and indefinables, goodness, rightness and *prima facie* rightness. And it seems to me a very sound philosophical impulse to try to reduce these as far as possible. Such an impulse has without doubt proved very successful as a guiding principle of scientific research.

At any rate, this particular ultimate, *prima facie* rightness, seems to cry aloud for further explanation, in particular in respect to its relation to actual rightness. Is the one idea derived from the other? It is hard to believe that they both occur to us independently. In fact, it seems to me pretty clear that the notion of simple rightness is the one that we start with, and that the notion of *prima facie* rightness, if we have it at all, is a construction from this, designed to meet certain difficulties, not an original datum of our moral experience at all. The nearest Dr. Ross seems to come to an explanation is to describe it further as equivalent to having a tendency to be right. But the notion of tendency in this connexion seems very unsatisfactory.

A minor difficulty is that the normal use of "tendency" implies, I think always, a tendency to some kind of action or behaviour. A tendency to have a certain quality (except in so far as that is a result of the action) is to me a new and very puzzling notion. But a more important objection is that in other fields of investigation the statement of a tendency is generally taken as a confession of ignorance and an invitation to further investigation. Dr. Ross's illustration from the laws of nature seems to me unfortunate. The scientist, so far as I can judge, is never satisfied with leaving them as statements of tendencies. He always tries to put

them in the form of something actually happening, which in certain defined circumstances will produce certain defined results. If he fails in this, he gives up talking about tendencies and states what actually happens in the form of a purely statistical law.

I suppose we think of tendencies to action on the analogy of forces in mechanics, which will impel a body in a certain direction at a certain velocity unless other forces act on it in another direction. But, as applied to the rightness of actions, the comparison has a difficulty, besides that which Dr. Ross observes.<sup>1</sup> The final movement of the body is the joint result of all the forces, each of which contributes something to it. But in the case of a particular action in particular circumstances it is actually either right or wrong. If it is wrong in those circumstances it makes no difference to its wrongness that this class of actions is *prima facie* right. So that its *prima facie* rightness would resemble a force which has no effect at all. It seems to me inherent in the very notion of rightness that in any action it is either there or not there. And I find it difficult to square this with the notion of a *prima facie* rightness which in certain actions seems to be in a sense there and not there at the same time. For these reasons *prima facie* rightness appears to me as a fact which has to be explained by making it dependent upon something else, not an ultimate datum which we simply have to accept.

The Utilitarian solves the difficulty by making the moral quality of actions, as actions, not an ultimate fact

<sup>1</sup> Dr. Ross's own warning (p. 29) is against regarding his "tendency to be right" as implying a causal relation between temporally successive events, which he regards as suggested by the usual use of "tendency." It will be clear from what is said above that I regard this as only one element, and in the present connexion not a very important element, in the implications of the word. Dr. Ross goes on to say that what he means is analogous rather to the relation between the various attributes of a mathematical figure. But surely all the attributes of a mathematical figure either belong or do not belong to any particular figure. There is nothing, that I can think of, that we could possibly describe as a *prima facie* attribute or a tendency to have a certain attribute.

about them at all, but derivative from something else. We cannot accept his view of what this something else is. But his line of approach seems to me perfectly sound. We must look for something, other than actions, which is always and absolutely good. And its relation to actions must be such that it is possible to see why certain types of action are generally right but in exceptional circumstances may be wrong.

We may pause here to ask whether Kant is really open to the criticism of making actions the ultimate bearers of moral qualities. He is sometimes spoken of as making the moral quality of the action depend on the motive: an action is only good if it is done from respect for the moral law, and the only thing absolutely good is the good will. But if we ask where the goodness of the good will is to be looked for, we find the answer given in terms of a description of the nature of the actions which it wills. The good motive is the will to do certain kinds of action, namely, actions which conform to the conditions of universality. What is absolutely good is action of a certain type done because it is of that type. The moral law commands actions of a certain sort, not motives nor character.

As against this I would suggest that we revert to a familiar view and make the ultimate bearers of moral qualities certain states of mind or attitudes of mind of conscious beings. Actions would, then, derive their moral quality from their relations to these. I do not propose to offer here a logical definition of what I mean by state of mind. It may become clearer, so far as it needs clearing, by the use of instances in the course of the further discussion. It is probably justifiable, in any case, to suppose that the term will cover a considerable area of common meaning for everyone. If any difficulties arise with regard to particular cases, they may be dealt with as they arise.

This view may look at first sight like our old friend, the view that actions derive their moral quality from

their motives alone. And I am not prepared to deny that the two views have a good deal in common. But "motive" is an ambiguous term which may mean either more or less than state of mind. It is not necessary to go into an analysis of the possible meanings of the term "motive." It will be sufficient to note two points which have to be borne in mind if the view now advanced is not to be misunderstood.

A state of mind may, of course, be a motive or part of a motive to an action. But it is always, also, more than this: it does not exhaust itself in becoming a motive to an action. Some states of mind, indeed, such as æsthetic enjoyment, do not normally express themselves in action at all. And others may not do so in certain circumstances. But a good or bad state of mind will none the less be good or bad if it does not lead to action at all. It is not only as a motive to action that it possesses its moral quality. Secondly, it must be remembered that the relation of motive is not the only possible relation between a state of mind and an action. An action may equally well be productive of a state of mind, either in the agent or in other people. And this relation also has to be taken into account in assessing the moral value of the action.

Kant, of course, would reject this, on the same grounds as those on which Dr. Ross would reject it. On the basis of his principle, "I ought, therefore I can," he would say that a right action must be an action that we can choose to do. And while, within the limits of physical possibility, we can choose what action we shall do, we cannot choose our motives. If we can turn the edge of this objection, we have removed the most serious difficulty in the way of accepting our theory.

It is true, no doubt, that we cannot produce a particular state of mind in ourselves by a single act of will. We cannot choose at one stroke what we are going to want and what we are going to feel like. We cannot, therefore, create a motive that is not, in some

sense, already there. Even this, of course, is only true of a single action produced immediately by an act of will. Obviously we can do a lot to educate and develop our feelings over a space of time by a series of actions. Still, as far as it goes, our first statement is correct.

If, however, we were to extend it to mean that we have no choice of the motives from which we are going to act we should be saying what is clearly not true at all. In any sense in which we can choose what action we shall do, we can choose what motive we shall act from. We are conscious of various impulses and desires moving us in this direction and that. And we can and often do choose or reject a course of action towards which a particular desire impels us because we think that that is a good or bad motive. There is a story about Plato, which is told in various different forms by ancient authors. In the simplest form, it is related that he said once to a delinquent slave, "I should have punished you, if I had not been angry." Whether this story is true or not, it is clearly perfectly possible. And it seems a clear instance of deciding about a course of action because of the motive which prompted to it; in other words, of choosing our motive. We know, also, how important we regard it to be clear about our motives, and not to deceive ourselves about them. This implies the possibility of choosing which, among possible motives, is to be the actual motive of our course of action. We often say, too, that we ought or ought not to act from a certain state of mind, that, for instance, like Plato, we ought not to act in anger. So that, altogether, I find no difficulty in saying that we ought or that it is right or our duty to act from certain motives and not from others.

I hold, then, that certain states of mind are good always and necessarily, and certain others bad. Obviously it would be impossible to attempt to say here which they are. Doubtless some of them are very complicated mixtures of different elements, particularly,

perhaps, the good ones. Professor Moore has taught us that some elements may be essential parts of a good state of mind yet not necessarily good in isolation. It is easier to point out certain states of mind which are always and necessarily bad. For instance, it can hardly be doubted that hatred of an individual is always bad. So is cruelty, in the sense of enjoying the infliction of pain. These are bad absolutely in any possible circumstances.

It follows, therefore, that actions which express or result from such feelings are always and necessarily bad. That would, probably, be universally admitted. But it also follows, however sharply you draw the distinction, that such an action is wrong.<sup>1</sup> If we have such feelings it is an absolute duty not to give way to them and let them control our actions. This duty is quite independent of circumstances or consequences. On the other hand, to act in the same way as such feelings would lead us to act, but from other motives, might on occasions be right.

This seems to afford a solution of the difficulty that certain kinds of action may sometimes be right and sometimes wrong according to circumstances, while at the same time we feel that either their rightness or their wrongness belongs to them in a sense in which the opposite quality does not. Certain kinds of action are the natural and direct consequences of certain states of mind. The state of mind inclines us to them regardless of circumstances. If we could control or alter the circumstances we should, while under the domination of that state of mind, make them so that they would favour actions of that kind. So the *prima facie* rightness or wrongness of a class of actions arises from the

<sup>1</sup> I have not attempted here to discuss Dr. Ross's important distinction between "right" and "good" directly and in detail. The only sense in which I could admit it I have stated in my *Moral Theory*, p. 179, and elsewhere. Though there is much in that book that I would modify now, on this particular point I adhere to the views there expressed. Prof. De Burgh, in his review of Dr. Ross's book in *Philosophy*, advocates a similar view.

goodness or badness of the state of mind which naturally and directly leads to actions of that class or with those characteristics. That class of action is obviously connected in a very special way with that state of mind.

Thus, for instance, love of cruelty would naturally and directly lead us to try to inflict pain, whatever the circumstances. Other states of mind, which are good, might lead us to inflict pain in special circumstances, for instance, for remedial purposes. But they would not make us like doing so. We should say that we were forced to do it by the circumstances and that we would alter the circumstances if we could. Obviously, that characteristic of actions which we describe as inflicting pain is connected much more closely and intimately with the first state of mind than with the others. And it is because that state of mind is bad that inflicting pain is *prima facie* wrong or has a tendency to be wrong.

Other cases are more complicated, but the essential principles are the same. Thus, the state of mind which makes us want to tell the truth (respect for others, desire to be on terms of trust and confidence with them, and so on) is good, and the state of mind which likes telling lies or even which has no particular dislike of telling lies is bad. Hence telling a lie is *prima facie* wrong and telling the truth *prima facie* right. But always the moral quality of the action, whether it is its rightness or its goodness, is derivative from its relation to the state of mind.

It remains to clear up one or two possible sources of misunderstanding. It is obvious that, when we are faced with the practical problem, What ought I to do? it is not always possible to solve it by reference to a state of mind, however carefully we scrutinize our motives. And we certainly often ask ourselves, Ought I to do this or that? Is this right or wrong? without conscious reference to the state of mind which prompts to it. Yet I think that, on inspection, we find that when

we are really faced with such a situation and when we arrive at a decision on such a question, we are not ignoring the state of mind but rather assuming it and taking it for granted. After all, in practice, we could not ask ourselves the question, Ought I to do this or that? unless we had attained at least such a degree of goodness of state of mind that we wanted to be guided by the answer to the question, or at least that it made some difference to us.

When, taking for granted the good state of mind, we ask ourselves, What action is right? we most often, or at any rate very often, answer the question by reference to the consequences, the relevant consequences themselves being ultimately—sometimes at a very distant remove—the production of certain states of mind. But we are only justified in considering the consequences if the state of mind in which we approach the question is good. Indeed, it will be the state of mind in which we approach the question which will decide what consequences we take into account. Of course, in practice we very often allow ourselves, and quite rightly allow ourselves, to be guided by current opinions and the accepted standards of conduct of our society. We must not fall into the *naïveté* of talking as if every moral decision was the result of a piece of original thinking of our own. I believe that the part played by these accepted standards is apt to be seriously underestimated in current discussions of the subject. And I incline to the view that whenever we find ourselves thinking of an action as simply right or wrong, without reference either to the state of mind of which it is an expression or to the consequences, we are really under the influence of the suggestion of accepted standards, which we have not examined or criticized. But I would guard myself carefully against any suggestion that this is necessarily a bad thing. For a great part of our conduct it is inevitable and desirable.

It remains just to raise a question which might at

first sight seem to present a difficulty. Ought a man to do an action, which will have good consequences and which is, in its external features, such as a good man would do, if his motive for doing it is bad? Ought, for instance, a man inspired by love of cruelty, to inflict pain which in fact is a useful or necessary pain?

The question, however, does not on investigation turn out to be so difficult as it may appear at first sight. It is obvious that it cannot possibly present itself to anyone as a practical problem. For if a man were in the state of mind in which he could genuinely ask himself that question, and if the answer to it affected his decision, he could not be merely acting from cruelty.

It seems to me that the question is not only purely academic, but strictly unmeaning. We can ask, of course, whether such an action would be good or bad, and we should reply unhesitatingly that it was a bad action, though it happened to have good consequences. But to ask whether a man *ought* to act like that implies that he was faced with a conscious choice, which he would not be if he were entirely under the domination of one motive. What we are really doing in asking such a question is to imagine ourselves in such a man's situation, and then, without realizing it, to alter the situation by introducing our own motives or state of mind into it, without which it would be impossible to ask the question at all.

I conclude, then, that part, at any rate, of Kant's difficulties arose from his insistence on making the action an ultimate bearer of the moral quality. The difficulties would be avoided by applying his argument solely to states of mind. At any rate, there is no difficulty in classifying certain general kinds of state of mind as always and necessarily good or bad. How far this universality is an important fact about them will be a subject for further investigation.

## THE PLACE OF DEFINITION IN ETHICS

THIS is not, perhaps, one of the major questions which the moral philosopher has to face. But it is of some interest, and of enough difficulty to lead to certain clear differences of opinion. Everybody is familiar with the classic argument of Prof. Moore that the chief notion in Ethics, that of good, is and must be indefinable. A somewhat similar argument has recently been put forward by Dr. Ross and extended by him to the notion of right. Some members of this Society will remember, also, the lively interchange of opinion which took place at the last Joint Session, one member demanding a definition of the term under discussion, while another denounced this demand as a mere trick of dialectic.

I propose, therefore, to ask the general question suggested by my title. And, in trying to answer it, I do not propose to begin by giving a definition of "definition," and then seeing whether there is any room for the process thus defined in ethical thinking. I prefer to begin at the other end, and ask what processes go on in ethical thinking which might possibly be called definition or which resemble other processes which everyone is agreed in calling definition. If we are clear about what processes can properly go on in ethical thinking, it becomes to a large extent a matter of choice whether we call any of them definition or not. And it will be of help in this investigation if we look for a moment at the use of definition in one or two other branches of knowledge.

(1) Perhaps the most obvious and typical instances of definition are to be found in the definitions of Euclidean

geometry. At any rate, it seems probable that this was the type that Aristotle had in mind when he drew up his rules for correct definition.

The place of definition in the Euclidean geometry seems fairly obvious. It is the necessary starting-point of the investigation. We begin with a definition of a figure, and from it, with the aid of certain axioms and postulates of general application, we deduce other properties of that figure and its relations to other figures. We thus have to have a definition to start with. And to arrive at such a definition is not a very difficult process. The definition of a triangle, for instance, simply states the most obvious feature of a kind of figure with which we are all familiar and of which we have a perfectly distinct idea. In other cases, though the definition is not very difficult to arrive at, it is not quite so obvious as this. The Euclidean definition of a circle, for instance, is not immediately obvious to the beginner in geometry, though the thing defined is perfectly clear and distinct to his mind. He has to stop and think for a moment before he sees that it is true of that sort of figure.

The difficulty is not very great. But it introduces us to a point that will assume more importance later—that is, the point that we may “have an idea of” a circle, and know what we mean by the term before we know the definition, before, that is, we are aware of the particular feature of the circle that a geometrician takes as the definition of it. This would be more obvious if we considered some of the other definitions that Greek mathematicians attempted of the circle, for instance, that it was the largest area that could be contained by a line of given length. I have heard unmathematical people, like myself, express doubts whether that was true of a circle or not. But, in spite of this, they would not have admitted that they did not know, in some sense, what a circle was.

(2) We may consider next the place of definition in zoology and botany. I am referring here to the earlier

work of classification of species and genera, which was carried out by the older natural historians. The modern biologist, in general, I suppose, is not very much interested in this. But it forms a necessary basis for his subsequent investigations.

The process of definition here is similar to definition in geometry, in that it involves the statement of the general features which distinguish one species or genus from the others. But the place it occupies in the investigation is entirely different. It is certainly not the necessary starting-point of the investigation. It is rather the conclusion of it. And the natural historian does not use his definition as a basis from which to deduce the other properties of the species. Nothing follows from the definition, in the sense in which the conclusions of a geometrical proposition follow.

If it were always necessary to have a clear definition of what we were talking about before starting our investigations on it, it would be difficult to see how the natural historian could ever start his investigations at all. Of course, he has some idea of the things he is talking about, he means something by plant, animal, dog, horse, fish, etc., before he begins to investigate and classify them. Human beings at the pre-scientific stage made some distinctions based on some observable differences between one kind of living being and another. And the first scientists start from that. But there is nothing that we could call a definition. There is only what, for convenience, we may speak of as the vague popular idea of dog, horse, etc.

What is contained in this vague popular idea it would be very difficult to say. Clearly it is based on certain obvious visible characteristics. But which characteristics the unscientific man takes in determining whether he is going to call any particular animal a dog or not it would be almost impossible to determine with any certainty. We might arrive at a conclusion by a long and careful psychological investigation. But the

important point to note is that such an investigation would be of no interest at all to the scientist. It would tell him nothing of what he wanted to discover. He simply accepts the fact that we do have vague popular ideas of the different kinds of living creature, and all this does for him is to point to the direction in which he can begin his investigations. But, once begun, he carries on his investigations by observation and experiment in entire disregard of the original idea. He looks for and finds facts which are not dreamed of at the pre-scientific stage, for instance, the facts of internal structure, which are generally taken as the most important features in the definition. These features are not in any sense contained in the original idea, nor could they be said to be implied by or deduced from it. When we arrive at a zoological definition we could not in any sense say that this is what we really meant by the term all along. Sometimes, indeed, our definition may contradict the original idea. Most people who know no zoology would probably call a whale a fish, like Herman Melville's whalers, or a spider an insect.

There is one more point that we may raise in passing before going on to our main subject. That is the question what light is thrown by these instances on the statement sometimes put forward that there is one kind of definition which consists in an arbitrary statement of what we are going to mean by a certain term. There is clearly no place for this kind of definition in either natural history or geometry. On the other hand, we need not accept the assumption apparently made by Aristotle that there is one and only one right definition for every general term, and that any other definition is wrong. We find, for instance, that the definition of a circle changes in passing from Euclidean geometry to conic sections. But that does not mean that the more elementary definition is wrong. What it does mean is that there is a certain freedom of selection from among the general properties of the thing defined according

to the context in which we are going to use the definition.

This freedom of selection, however, is severely restricted. Most obviously it is restricted by the facts. We can only select among the properties that really belong there. It is restricted, again, by the context. If we want to investigate in one particular direction, we may choose the definition that will be most helpful for that investigation. But which definition will actually be most helpful is a matter of fact which we have to discover. And we are restricted by the ordinary use of language. Even if we modify the ordinary idea of what a word means in our final definition (*e.g.*, when we define "fish" so as to exclude whales), we must still keep as near to it as possible. We must not define "fish," for instance, so as to exclude all or most of the creatures usually called fishes. To say, "By 'fish' I am going to mean a two-legged animal with feathers," would be entirely pointless. An arbitrary statement of what I am going to mean by a word, if it is really entirely arbitrary, is not a definition, or even a form of definition. It is merely a way of being silly.

It is possible that definition has sometimes been supposed to be arbitrary because it has been confused with a different process, arbitrary naming. We get a certain amount of that in scientific investigations when we invent a new technical vocabulary. Here, however, the usual process is reversed. Instead of beginning with a word and then arriving at a definition, we get our definition of the general kind of thing that we have discovered in our investigations, and then look about for a name for it. Even here, however, there is generally some reason for the choice of names. But the possibility of this process illustrates one important point, namely, that definition is never merely of names, but always of something that the name means to us. Otherwise we could not, as we clearly sometimes do, arrive at the definition of a class of objects before we find a name for

it. Of course, more often we begin with a familiar name which already conveys some meaning to us, and so we are apt to speak loosely at times of defining a name or word. And there is no harm in that as long as we realize that it is only a loose and popular mode of speech.

(3) We now turn to our main subject, definition in ethics. No one doubts, of course, that some of the general terms used in ethics are capable of being defined, even if some of them are believed to be indefinable.

When we consider the work of the moral philosopher in the light of these analogies two or three points seem to come out clearly at the outset. One of these is that it is impossible in ethics to start, as geometry does, with any definitions which will be generally and immediately accepted and recognizably applicable to the objects of our study. If we could find such clear definitions to start with there would be no call for specifically philosophical thinking about the subject at all. It would be quite a different kind of thinking that would be required. What gives rise to the need for philosophical thinking is that we are faced with ideas or notions which, though in common use, are not at all clearly conceived, and therefore not immediately definable. And it is the first, if not the only work of philosophical thinking to make these ideas clear and definite. In this respect the position of definition in ethics is analogous to its position in natural history. It is not the starting-point, but the goal of our inquiries. It comes at the end, not at the beginning of our investigations.

On the other hand, there is one respect in which the situation in ethics is quite different from that in natural history. To the naturalist, as we have seen, the vague popular idea of any kind of animal, with which we start before we know any zoology, is of no interest at all except as merely pointing the way at the beginning. He then goes on to study the observable facts, and is not concerned at all to analyse or clarify the original idea. "That's not my idea of an elephant" an

unscientific person is reported to have said on hearing the scientific account of this species. To which the zoologist, quite naturally, replied, "Perhaps not, but it is God's idea." What is contained in "my idea" of an elephant in this sense is completely irrelevant to the studies of the zoologist.

To the moral philosopher, on the other hand, what is contained in "my idea" of good or right or justice or selfishness is of vital importance. It forms the main part, if not the whole, of the subject of his investigations. At any rate, it is an essential part, and a part which calls for hard and prolonged effort. It seems to me that one of the most frequent causes of error in ethics is that the investigation into the content of the ideas of good, right, etc., which actually are or have been held has not been sufficiently widespread and exhaustive. We have no observable facts, different in kind from these ideas and discoverable by quite different methods, to which we can turn, as the naturalist does, for the real subject of our investigation. The starting-point for ethics is always the moral judgements of mankind and what is implied in them, and we can never entirely get away from these as our main source of knowledge.

The technique of this process of clarifying the vague ideas with which we start would be an interesting subject of study. Though many people have attained a considerable degree of success in the process, there is little explicit discussion of the material that we have for it and the methods by which it should be treated. There is room for a new logic, or perhaps a psychology of ethics. There are also, no doubt, certain psychological and metaphysical difficulties in the suggestion that it is possible to discover more in an idea than those who entertained the idea were aware of (or had any idea of). The position is not like that of the naturalist, who claims to discover a lot more, and sometimes something quite different, in the fact from what there was in the original idea of it. For

here we do not yet know whether there are any facts that we have access to, except by an examination of ideas. But we cannot enter into these problems here. It is an undeniable fact that something of the kind goes on. But there is room for considerable difference of opinion about the correct description of it. I suppose in practice we generally say that we have discovered something more in a person's idea than he knew himself if we find him using it or applying it in a way that would only be justified if this something more was included in it.

There is, however, one point in this connexion on which I should like to say a word, because it is concerned with the interesting question of what the qualities are which make a good moral philosopher. It sometimes seems to be supposed that the only virtues which a philosopher needs are what I might call the logical virtues, a sense of form and system, a passion for coherence and self-consistency, a love of precise definition, a keen eye for fine distinctions of meaning, and kindred qualities. No one, I hope, would undervalue these qualities. But, for the moral philosopher in particular, I would suggest that it is a profound mistake to treat those qualities as the sole, or even the chief qualifications necessary for his task. At the risk of being misunderstood, I would go so far as to say that it is possible to be too exact and consistent, or rather, perhaps, to insist on exactness and consistency inopportunely at the wrong time or the wrong place.

At any rate, we must remember that the development of these virtues is, if I may be allowed the metaphor, a question of sharpening the instrument with which we think. And an instrument, however sharp, is of no value unless there is something to cut with it. Moral philosophy, as I understand it, consists primarily in reflection on moral experience and criticism of moral assumptions. And we cannot reflect on these things until we have got some sort of acquaintance with them.

It seems to me that there is a quality required in ethics analogous to what we might call a good nose for facts in the natural scientist. And this is a different quality from the capacity for constructing a consistent and systematic theory to explain the facts, and just as essential.

This does not mean, as I think it is sometimes taken to mean, that the moral philosopher should necessarily have an extensive and intense moral experience of his own, that he should be living a life of continual struggle against temptations, that he should be labouring under a sense of sin, or anything of that kind. Doubtless he must have moral experience of his own, and must take this seriously, not just as an object of idle curiosity. But to be living a life of strong emotional stress and strain, to be going through fierce moral conflicts, would probably be, at the time at any rate, a positive disqualification for reflecting on it. Partly, of course, any strong emotion is unfavourable to reflection while it is being experienced. But what is much more serious, such strong emotional experience would tend to concentrate our attention too exclusively on our own experience, which in the nature of things must be very limited, and pay too little attention to the experience of other people, which is just as essential a part of our data.

The important qualification for a moral philosopher is, therefore, not so much moral experience of his own as a certain sensitiveness and receptivity to the moral experience of other people, and to the moral assumptions or ideas that are taken for granted by the people around him. He must be able, in some way, to let these enter his own mind in the form of assumptions or vague ideas, so that he may be able, then, to make them explicit and interpret and criticize them. We may add that he should be able to do this not only for the ideas current around him, but also for the ideas current in other ages. It is very doubtful whether the highest levels of ethical speculation are attainable without an historical sense.

This is the point at which the possible dangers of

premature clear thinking arise. Current moral ideas and assumptions are necessarily vague and inexact, and probably often self-contradictory. But even the contradictions and confusions are part of the data for reflection. We must be able to receive them into our minds in that form before we begin to clear them up and make them definite and self-consistent. If we begin our work of cutting them down on the ground of self-contradiction too soon, if we begin limiting their meaning in order to get at a clear definition too hastily, we may easily find that we have rejected without proper examination some of the most essential parts of our data.

I seem to have wandered from the place of definition in ethics to the place of definiteness in ethics. But it is not all irrelevant, for we may presume that definition is one form of definiteness. At any rate, we have got so far that the first task of the moral philosopher is to make clear and explicit the vague general ideas that are held about the objects with which he deals. He has to discover as much as he can of what is implied by the ways in which the chief moral notions are or have been used. This is a sort of definition. But it is not a sort of definition with which he can rest content. For, as has been suggested, he will find when he has made these implications explicit that they by no means always coincide. Sometimes, indeed, they seem flatly to contradict each other. They, therefore, have to be subjected to progressive examination and criticism, until we finally reach an answer, that satisfies us, to the main question of ethics. This main question may be formulated thus: What sort of facts must we suppose there to be in order to account satisfactorily for human beings having these ideas about them?

Thus the whole of this stage of our investigations consists, in a very real sense, in arriving at definitions. This is not, perhaps, the whole of ethics. For when we have got these results we ought to be able to draw certain conclusions from them by a process of deduction.

But it is certainly the most important and the most difficult part. So the place of definition in ethics appears to be co-extensive with the greater part of its field. Further, it is a continuous and progressive process. We have no grounds, except as a matter of temporary convenience in a particular part of the investigation, for picking out one feature as being, in a special sense, the definition. Even in geometry we saw how the sharp Aristotelian distinction between the essence, given in definition, and the properties broke down. And in ethics it is even more obviously untenable.

These considerations will indicate the attitude that should be taken up to the suggestion that we must give definitions before our investigations start. As applied literally to ethics the suggestion is obviously absurd. Definitions are the conclusion of the process, and cannot be demanded at the beginning. To the person who says, "You must state precisely what you mean by your terms before you can discuss them," we must reply, "It is only by discussing them that we can find out what we mean by them."

On the other hand, I think it is possible, on occasions, to carry this refusal to give preliminary definitions too far. At least it ought to be possible to give, if not a definition, a preliminary indication, a kind of sign-post pointing in the direction of the thing we are going to investigate. It might be done by citing one or two typical instances. In fact, this is often the most satisfactory method, though not the only one. But we must always remember that it is only a preliminary indication. The reason why some people are frightened of going even as far as this is that they feel that once they have committed themselves to any such statement, they are bound to hold by it for the rest of the discussion, and that if they restrict or enlarge or modify it in any other way they are thereby convicted of inconsistency and self-contradiction. But in reality it would be a very unfruitful discussion if it did not produce considerable

modifications and developments of the notions with which it started.

We may suspect forgetfulness of this truth when we find text-books and courses of lectures giving, as they too often do, an inordinate amount of space at the beginning of their treatment to an attempted definition of their subject. I remember a great teacher, who influenced my early thinking more than any other single person, who was fond of exercising his acute powers of criticism on these definitions. He would take the definition of a subject given, either verbally or in writing, by one of its exponents and proceed to examine his subsequent treatment of his subject in detail, and show how far he departed in practice from his original definition. As young men we were enormously impressed by these devastating criticisms, and I think we sometimes wondered how any psychologist or economist could bear to go on with the study of a subject which apparently did not really exist. Such criticism was doubtless a valuable warning against taking any preliminary definition too seriously. But beyond that, it seems to me now a singularly unprofitable exercise. I much prefer the method of the Scottish professor, who, after discussing for some time various suggestions for distinguishing between logic and epistemology, concluded, "The only really satisfactory definition of these two subjects that I can give you is that logic is the subject on which I shall lecture to you on Mondays, Wednesdays and Fridays, and epistemology the subject on which I shall lecture on Tuesdays, Thursdays and Saturdays." We must hope, however, that by the end of his course the relations between the two had become fairly clear, though probably not expressible by any simple formula.

There remains for examination one question, which to some will seem the most interesting, if not the only interesting part of the discussion. Under what conditions and on what kind of grounds can we pronounce

any ethical notion to be indefinable? It seems, if our previous discussion has any truth in it, that such a statement itself admits of a variety of meanings. We may mean that our idea of it is indefinable, or that we think of it as something indefinable. What we think it to be is, I suppose, the strict sense of the phrase "what we mean" by any term. But we might also mean that, however we have been accustomed to think of it, it is in fact a simple unanalysable quality which can only be named and not described further. This would mean, according to our account of ethical thinking, that the only way to account for our thinking and speaking thus and thus of it is to suppose it to be such a simple quality. Let us consider these possibilities in order.

We start, it is suggested, with a vague general idea, a consciousness of a sort of a something we do not know exactly what, to which we apply the term in question. Now, in one sense, this is necessarily indefinable. Just because it is a vague general idea, it is different from the clear explicit idea expressed in the definition. The two are not exactly equivalent, as the meaning of two synonyms would be. If arriving at a definition means an advance in knowledge, the words of the definition must express something more than was present in the original idea. That is why a definition is a significant statement at all.

This is, of course, quite different from having a clear and explicit idea of a simple unanalysable quality. We have such ideas, as for instance of any particular colour. But it is obvious that we do not have such ideas of moral facts, at any rate to begin with. If we had there would be no possibility of beginning any discussion about them, indeed no room for philosophical thinking in such questions at all.

There is, however, another possibility that comes somewhere between these two. We may find that in our ordinary use of some moral notion, such as good or right, we use it in a way that implies that it is a simple

unanalysable fact about which nothing further can be said. I find it rather difficult to imagine what sort of usage could be said to imply this. But, at any rate, it seems to me clear that we do not in fact use it in this way. It seems certain that our actual use and applications of these notions imply a good many things about them which can be put into words. Consequently they cannot be said to imply that they are indefinable.

So we are left with the possibility about any such notion—let us take “good” as a typical example—that, though we often seem to assume it to be something more, in reality it is only a simple, indefinable quality.

Here, again, I find it difficult to see what sort of proof there could be of this. There is the well-known argument in *Principia Ethica* which argues that good must be indefinable, because, whenever a definition is attempted, we can always ask with significance of the complex so defined whether it is in fact good. I have never been able to find any plausibility in this argument. It is not clear what sort of significance such a question is supposed to have. It may mean that we can never be quite sure of the correctness of any definition that we offer, that the possibility of its being wrong is always in our minds, and that therefore we can still raise questions about it. This is no doubt sometimes true. Indeed, if the process of definition is as we have described, it seems the right and proper attitude to take. But it obviously does not exclude the possibility that the definition may be correct. It is also true, however, that even if we are certain that the definition is correct we can still ask the question significantly, in the sense that we can have something before our minds in asking it. For, whenever the definition is not immediately self-evident, we can still retain a memory in our minds of what we originally meant by the term, namely, our first vague general idea. And, as we have seen, the vague general idea is necessarily different from the more precise idea expressed in the subsequent definition. So

we can always put a question about their relation to each other. This, however, applies in many cases in which a definition is admittedly possible. Though I know, for instance, that part of the zoological definition of a fish is that it is cold-blooded, I can still attach a meaning to the question, Is a fish a cold-blooded animal ?

There is one further point of importance in this connexion. If it were proved in any way that calling a thing good meant that it possessed a simple indefinable quality, it still would not necessarily follow that this was an important or interesting fact. It would only become important if it could be shown that it meant nothing more than that, that there was no further fact that could be asserted about all the things we called good. If there was any further fact or group of facts that could be truly asserted about anything we called good and about nothing else, it is obvious that in any argument or statement we could always substitute this for "good" without saying anything untrue. And if it led us on to further knowledge, it would be a much more interesting and important fact than the mere presence of a simple, indefinable quality.

I think we could find a convincing illustration of this argument by considering once more one of our elementary geometrical ideas. It seems to me clear that what we understand by a circle really has a simple indefinable quality, which we apprehend directly. That is what we think of when we first learn the use of the word, and it remains in our minds even after we have learned the various geometrical definitions. We could always distinguish in our minds between this simple quality, which we should probably speak of in crude language as "what a circle looks like," and any of the facts about that sort of figure given in the definitions. So, when we are faced with Euclid's definition, still more when we are faced with the complicated formula by which a circle is defined in higher branches of mathematics, we could truly say, in a sense, "That is not what we *mean* by

circle: that is a further fact *about* it.” But no one would think such a statement very valuable, nor would it be regarded as invalidating the mathematician’s right to his definitions. If we are interested in extending our mathematical knowledge, the simple, indefinable quality of a circle becomes uninteresting and unimportant.

The distinction, therefore, which Dr. Ross so frequently insists on,<sup>1</sup> between the attribute which we mean by the term and the further attribute or attributes necessarily connected with it, seems to me an unreal one. Partly, it smacks too much of the sharp distinction between essence and properties which we are agreed in abandoning. But also it seems to me to misrepresent the nature of ethical investigation. What we *mean* by “good” (or “right” or any other moral term), in the first place, is the vague indefinite idea with which we start. But this only sets the problem. What we are trying to find is the nature of the facts that we must suppose to exist in order to account for the way in which we think about these matters. And anything that we can say about them may equally be taken as part of their definition, in the only sense in which definition is possible in ethics at all. It may be that these considerations point in the direction of the doubts lately raised by Mr. Joseph (in *Some Problems in Ethics*) whether goodness should really be thought of as a quality at all. But that, I believe, is to be the subject of future discussions.

1932.

<sup>1</sup> *The Right and the Good*, Chapter I, *passim*, *Aristotelian Society, Supplementary Volume*, X, p. 61.

## PLATO AND NATURAL SCIENCE

THE object of this paper is, as the title implies, to investigate the relation of Plato's thought to natural science. More especially, it is intended to examine the widely-held view that Plato's influence, owing to the character of his beliefs, was necessarily and positively unfavourable to the development of natural science as we know it at the present day.

I think there can be no doubt that such a view is widely spread. It would be possible to quote the *obiter dicta* of several distinguished scientists to this effect. But perhaps more attention is called for to statements of historians of science and classical scholars. Thus Mr. Dampier-Whetham in his *History of Science* dismisses Plato in a few contemptuous sentences. "Plato's ideas of nature," he writes, "were deduced *a priori* from human needs and predilections. . . . Based on such ideas, Plato's science is for the most part fantastic." He goes on to make the assertion, based no doubt on a misunderstanding of a passage in the *Timaeus*, that "he roundly condemned experiment as either impious or a base mechanical art."

But perhaps the most complete and striking expression of this point of view is to be found in Mr. W. H. S. Jones's introduction to his admirable translation of Hippocrates in the Loeb Classics. There he presents us with a dramatic picture of Science struggling to free itself from the grip of its deadly enemy," Philosophy, gaining a momentary success in the time of Hippocrates and his immediate successors,

but eventually succumbing to the malign influence. His opinion of philosophy may be inferred from his statement that a philosophic theory (as opposed to a scientific) "is a foundation for an unsubstantial superstructure; no efforts are made to test it by appeals to experience, but its main support is a credulous faith." He recurs to this point in contrasting the *ὑπόθεσις* as used by Plato with the true scientific hypothesis. "An hypothesis must be tested by further appeals to sense-experience: a *ὑπόθεσις* must not be so tested, it must be taken for granted as an obvious truth. Plato would have nothing to do with appeals to sense-experience."

There is more in the same strain, and he ends up with a really eloquent passage. "And so the two methods, that of Greek philosophy and that of modern science, stand face to face. The struggle between them was, for the time being, short. Medicine, almost the only branch of Greek science scientifically studied, was worsted in the fight, and medical science gradually degenerated from rational treatment to wild speculation and even quackery and superstition. The transcendent genius of Plato, strong in that very power of persuasion the use of which he so much deprecated, won the day. The philosophic fervour which longed with passionate desire for unchangeable reality, that felt a lofty contempt for the material world with its ever-shifting phenomena, that aspired to rise to a heavenly region where changeless Ideas might be apprehended by pure intelligence purged from every bodily taint, was more than a match for the humble researches of men who wished to relieve human suffering by a patient study of those very phenomena that Plato held of no account. So for centuries philosophy flourished and science languished, in spite of Aristotle, Euclid, and Archimedes."

Striking though this passage is, its historical accuracy seems in inverse ratio to its eloquence. The last sentence is the worst offender in this respect. It

is not true, except in a very Pickwickian sense, that "philosophy flourished" for centuries. The "quackery and superstition" that eventually corrupted Greek science were equally fatal to philosophy as understood and practised by Plato. It is not true, in any sense, that science languished for at least a century and a half after Plato. Indeed, that period might well be called the golden age of Greek science. In mathematics, astronomy, and mechanics few ages have rivalled it. Euclid and Archimedes are only two among many names, which include those of Apollonius of Perga, Aristarchus of Samos, who anticipated Copernicus, and Ctesibius, one of the founders of mechanics. Geography as a science begins in this period with Eratosthenes, and zoology and botany with Aristotle and Theophrastus. In spite, too, of the work of the school of Hippocrates, it is only in this period that the foundations of a scientific anatomy and physiology are laid by Herophilus and Erasistratus. This is only a selected list from a much larger field. But it is surely enough to prove that the suggestion that Plato had in fact any depressing influence on the progress of natural science is totally devoid of foundation.

This might, of course, be accident, and show merely that Plato had no influence one way or the other. But what is of more significance is that so many of those who came into personal contact with Plato himself developed an interest in the observation of natural phenomena. Aristotle and Theophrastus were both students under him, and both were ardent admirers. They criticized him and differed from him on some points, of course. But there is no sign that in their biological researches they felt themselves in opposition to his teaching. Accurate observations of heavenly phenomena were, of course, part of the training in the Academy. Heraclides Ponticus could hardly have arrived at his astronomical discoveries without such observations. What is of special interest is that Plato's

successor, Speusippus, anticipated Aristotle in the attempt at a scientific classification of animals and plants. We know only fragments of his work on this. But they are enough to show that it must have demanded a good deal of careful observation.

It is true of later generations, also, that those who read and admired Plato by no means always felt themselves discouraged from scientific observation and research. Galen, described by Dr. Singer as "one of the greatest biologists of all time," was an enthusiastic student of Plato. And, to come down to more modern times, both Kepler and Galileo declared themselves followers of the Platonic philosophy in preference to the Aristotelian. Such facts ought to be enough to make one feel that there must be something wrong in the description of Plato as in any sense a "deadly enemy" of scientific research.

For a true understanding on this point we must, however, turn to a more careful examination of Plato's own views. How much truth is there in these charges? Is it true that he despised and taught others to despise a knowledge of physical nature, that he discouraged careful and accurate observation of phenomena, and that he claimed to arrive at a knowledge of nature by pure reasoning *a priori*? Such seem to be the main charges against him. But they are not put in very precise language. And it is important to distinguish several different items in the accusation, which have no necessary connection with each other.

In the first place, it is clearly true that he thought that knowledge of the sensible world was an inferior thing to the knowledge of the intelligible world of Forms. It was valuable chiefly—not entirely, as we shall see later—as a means to the latter. And it was incapable of ever becoming absolutely true and certain knowledge, so that the real philosopher or lover of wisdom could never rest content with it alone. So much is certain, and the strongest of Plato's advocates need

not hesitate to admit it. But it does not take us very far, and certainly does not make out the case against Plato as an influence hostile to the development of natural science. To suggest that it does leaves out of account at least two possibilities.

In the first place, it forgets that there is a wide gap between holding that a particular activity is not the highest and best of human activities and despising it as of no value at all. Even if it was held that observation of physical nature was inferior to pure mathematical or philosophical reasoning, it might still have a place in the sum of human activities, and those who devoted themselves to it might be doing valuable work for society. We know, indeed, how strongly Plato emphasized the idea of each man doing the work for which he was fitted by tastes and capacities. And he certainly did not believe that everyone ought to be a philosopher. It is very misleading, also, to speak as if he despised everyone who was not a philosopher, as misleading as it would be, for instance, to suggest that, because the Catholic Church taught that the religious life was the highest life possible to man, it regarded any other kind of life with contempt. And if there was a place for other work, it would be natural to demand that this other work should be done as well as possible. Insistence on a high standard of careful observation for those whose work was observation is not in the least incompatible with a belief that there was higher and better work than this.

The second point is equally important. If knowledge of physical nature is only valuable as a means, it may still be regarded as a very valuable means, even for those capable of mathematical and philosophical work. And it is fairly clear that Plato did, in fact, so regard it. In the *Timaeus* (69a) he says clearly that investigation into physical and mechanical processes is necessary as a means because without it that other knowledge, which is what we really care about, cannot be attained. In the

philosophical passage of the Seventh Letter, again, he says that a grasp of philosophical truth can only be attained after constant grinding away at "words and definitions and *visual and other sense-perceptions*" (ὄψεις τε καὶ αἰσθήσεις). In the *Philebus* (62b) he goes further, and the knowledge of the sensible world and the power of manipulating it are included as necessary parts of the good life. What little we know of Plato's actual practice tells in the same direction. He was capable of careful and acute observations himself. Professor Taylor has pointed out the value of his geographical and geological account of Attica in the *Critias*. There is a well-known fragment of a comic poet describing a lesson in the Academy, from which it is evident that work in botany and zoology was part, at any rate, of the preliminary training. We cannot lay too much stress on the details of this, but it is, at least, clear that it was taken for granted that in trying to arrive at a botanical classification the students would have actual specimens before them to work on. Even in some of the mathematical work the same insistence on accurate observation is indicated. In the problem about mathematical formulation of the movements of the heavenly bodies, which Simplicius tells us Plato set to his associates in the Academy, the essential condition of the solution was that it must, in the well-known phrase, *σῶζεν τὰ φαινόμενα*: it must account for all the observed facts. Such evidence may not be very great in bulk; but, such as it is, it is all on one side. And it ought to make us very suspicious of suggestions that Plato despised and discouraged careful and accurate observation.

I would suggest, if I may be permitted a brief digression, that all this is part of the general misrepresentation of Plato as a cloistered scholar, sitting in his study, and working out by pure reasoning all his views, both on physical nature and human conduct. This is really a ludicrous misunderstanding. He was a man of

the world, who did not begin to be a University don till he was over forty. Before that he had seen a good deal of military service, if later reports are to be believed, with great distinction. He had been in close touch with political circles, he had travelled widely. It is difficult to see how anyone who reads the dialogues can doubt Plato's shrewd knowledge of human nature. And he was acutely alive to the necessity of experience of life, in addition to philosophical thinking. He warns Erastus and Coriscus in his letter to them (the Sixth) that the latter is only a foundation which has to be supplemented by the former. And much earlier he wrote in the *Republic* that those who devoted their whole time to philosophical reflection were likely to become just as useless as those who devoted themselves to practical activity without thinking at all. The passages in which he appears to speak in depreciation of practical experience will be found, with scarcely an exception, to be directed against those who hold that practical experience is sufficient by itself alone. He never despises practical experience. But he does despise those who are perfectly satisfied with it alone for the conduct of life, and who themselves despise the philosophical thinking which endeavours to arrive at clearness about our ultimate ideals. And his attitude is very much the same towards knowledge of the sensible world.

To return to the main argument, all these criticisms of Plato seem to me to rest on a fundamental misunderstanding of his position. It is true, of course, that he thinks that knowledge of the world of Forms is more important than knowledge of the sensible world. But it is not true, as Mr. Jones suggests, that he regarded phenomena as of no account, nor that he thought that even the true philosopher could dispense with knowledge of them. On the contrary, the passages quoted make it clear that he regarded such knowledge as essential, both as a means to the knowledge of the Forms, and for its own sake as necessary for the conduct of life.

This leads us on to a further point. How does he believe that this knowledge of the sensible world is attained? It seems at times to be suggested in some of these attacks on Plato that he held that the philosopher could get all the knowledge of the sensible world that he needed by some form of pure reasoning without using his senses at all. But this equally rests on a misunderstanding of his beliefs about the relations between the intelligible and sensible worlds. We shall see directly the sense in which he believes that the former kind of knowledge gives us a clue to our understanding of the sensible world. But it is not true in any sense that he thought that the one could be substituted for the other. He did not believe that it could ever be possible to deduce from any first principle, rationally apprehended, just what would be found in the sensible world. The whole point of his distinction between the world of knowledge and the world of opinion is that they are to be regarded as two separate spheres with different modes of apprehending them, co-ordinate with each other and relatively autonomous.<sup>1</sup> What is in the sensible world can only be discovered in the last resort by sense-perception. Plato never suggested that reason could replace observation as a method of discovering this. If it could, it would mean that the sensible world was completely intelligible to the reason. And it is fundamental to his whole view that it was not. There is always an element of the irrational in it, an element of "brute fact," as a modern writer has called it, which is not accessible to any rational process of argument.

The failure to see this arises at times, I think, from a failure to distinguish what Plato has to say about the methods of philosophical reasoning about the intelligible world from what he has to say about the study of physical nature. Thus, his account of the use of

<sup>1</sup> τὸ μὲν δὴ νοήσκει μετὰ λόγου περιληδπτόν . . . τὸ δ' αὖ δόξη μετ' αἰσθήσεως ἀλόγου δοξαστόν (*Tim.*, 28A.)

*ὑποθέσεις*, or assumptions, which arouses the indignation of Mr. Jones, is meant to apply, as is clear from the account in Book VI of the *Republic*, to the development of philosophical knowledge, not to the observation of the sensible world at all. And in its appropriate place it is a very useful method and has been applied in fields in which even those most suspicious of the claims of philosophy would have to recognize its value. Thus Mr. Bertrand Russell, in describing the methods of mathematical philosophy in his *Introduction to Mathematical Philosophy*, says: "Instead of asking what can be defined or deduced from what is assumed to begin with, we ask instead what more general ideas or principles can be found in terms of which what was our starting-point can be defined or deduced." It would be hard to find a more succinct account of the procedure recommended by Plato. And we may take the assurance of so great an authority as Mr. Russell that, in his own special field, this method has been fruitful in results.

Again, consider the use of final causes as a principle of explanation in the *Timaeus*. It is clear that Plato held that it ought, at any rate ideally, to be possible to explain what was in terms of purpose, on the grounds that it was best that it should be so. And he suggests one or two tentative explanations on these lines. But it is clear that he never suggested that the explanation by final causes could be used to replace observation or as a proof that in fact such and such things were the case. He suggests no more than that we ought to be able to find a final cause which would explain why the observed facts were what they were. But the final cause was never used to give us the facts. There are certainly difficulties and obscurities in Plato's theory of final causes. But at least this much is clear from the *Timaeus*. The explanation by final causes is not put forward as an alternative to the explanation by physical and mechanical causes, in the sense that the final causes explain some phenomena and physical causes others.

That has been held by some thinkers. But it was not Plato's view. For him the two kinds of explanation are parallel and co-ordinate. He would have said that, if we had sufficient knowledge, we should always find it possible to discover both a final cause and a physical cause for every natural phenomenon. It is clear that such a view does nothing to hinder or discourage investigation into physical causes.

As to the investigation into physical causes, it is clear that Plato conceived of this as carried on in very much the same way as any modern scientist would pursue it. That is to say, the theory that seems to him to explain the observed facts best is put forward as the most probable hypothesis. He is fully alive to the uncertain and tentative nature of all these theories. In fact, he insists on it over and over again. ἀλλοι δὲ εἰς ἄλλα πη βλέψας ἕτερα ἰοῦσάσιν (another person who has observed different facts will come to a different opinion) is the keynote of the discussion. Where I think he does differ from the modern scientific outlook is that he does not look forward to a continual progress in the discovery of observable facts, made possible by the invention of new instruments and the improvement of experimental technique. He is, doubtless, by our standards much too ready to put limits to the possibility of fresh discoveries in certain directions. That, by the way, is without doubt the explanation of the passage (*Timaeus*, 68d), which has been supposed to express his disapproval of experiment. But in this Plato is in very much the same position as any other Greek. There are very definite limits to what we can observe by our unaided natural powers. And not even Hippocrates foresaw the discovery of the microscope, the telescope, or the camera. Still, this is a matter of degree. And there is no reason to doubt that Plato realized the possibility of some further developments in observation.

Where Plato turned for his account of the facts and theories about physical nature given in the *Timaeus* is

an interesting speculation.<sup>1</sup> M. Rivaud, in his recent edition of the dialogues, thinks that some of them were derived from investigations made in the Academy itself. This is not impossible in some cases. But the crudition of Professor Taylor has shown that a great deal was taken over from earlier investigators, such as Empedocles, Alcmaeon, and on a few points from Hippocrates or his associates. The few indications that have survived of the methods of these authorities suggest that observation and even experiment were freely used. The experiment by which Empedocles proved air to be a material substance is widely known. Alcmaeon certainly practised dissection. The erroneous opinion that liquids drunk entered the lungs is repeated by Plato from the Hippocratean corpus, where it is based on a recorded experiment. Plato himself suggests an elementary experiment to show that the particles that convey smells are larger than the particles of air.

What are the results of the argument so far? The negative side of the case may be taken as proved. There is absolutely no justification for the suggestion that Plato did anything to discourage careful and accurate observation of nature, or that he claimed to be able to get at the results of observation by any other method. The extent to which he positively encouraged it is, naturally, much more difficult to estimate at all precisely. Yet we may be fairly confident in supposing that Plato would have held that, when observation had to be done, it should be done as carefully and accurately as possible. And the subsequent work of some of his pupils suggests

<sup>1</sup> What is the object of the account of natural processes given in the *Timaeus*? It is not, of course, a record of original observations and experiments. Nor can it be intended as a text-book summary of the knowledge of these matters so far attained. It seems to me that it is best understood as an attempt to see how far these processes, as they were known at the time, could be explained in terms of the geometrical atomism expounded earlier in the dialogues. This theory itself was doubtless worked out as a response to the demand that the material world, so far as it was intelligible at all, should be capable of being formulated in mathematical terms. But the facts to which it was applied were those discovered by the ordinary methods of scientific investigation.

that they felt encouraged by his teaching to devote a good deal of time and attention to the work of observation. But this is not yet the whole story. We have proceeded so far on the assumption, which seems to be adopted by those who have criticized Plato, that the method of scientific research could be adequately described without further qualification as observation and experiment. Yet the history of the development of some of the most important natural sciences might suggest that observation and experiment need to be guided by certain general principles if they are to be fruitful. And it will be the last task of this paper to show that one of the most important of these principles had already been grasped by Plato.

The fundamental distinction that Plato makes between knowledge of the intelligible world of Forms and knowledge of the sensible world of physical nature is familiar to everyone. The former was clear, absolute, and certain. The latter could never attain to the condition of the former. It could never be a completely rational system, but must always contain an element of "brute fact" impervious to the reason. But another distinction of equal importance is apt to be overlooked. Even within the world of sense-perception and opinion our knowledge might approximate to the true scientific knowledge of the intelligible world. It might become relatively scientific, and, so far as it did, it would have to be distinguished from merely empirical knowledge, the mere recording of observed fact. Wherein lies the difference? Plato's answer is quite clear. Knowledge of the sensible world approximates to true scientific knowledge in so far as it takes the form of precise measurement and mathematical formulation. "Science is measurement," a modern scientist has declared. And, as applied to the physical world, that is Plato's answer too.

One of the clearest expressions of this is to be found in the discussion of the practical arts and applied

sciences in the *Philebus* (55, 56).<sup>1</sup> He distinguishes among them between those "which have a greater participation in true scientific knowledge and those which have less." And to illustrate this he says: "If we took away the numbering and measuring and weighing from all the arts, what was left in each case would be called a poor thing. . . . What was left would be guess-work and training the senses empirically by practice." He draws the conclusion from this, which might have shocked ordinary Greek opinion, that the art of building because of its careful measurements and use of instruments of precision was a higher and more scientific form of knowledge than the mere intuitive skill of the artist or musician. This is only one application of the general principle which is implicit in the whole of Plato's theory of knowledge.

I cannot but believe that this principle of Plato's would arouse a sympathetic echo in the minds of most modern scientists. Certainly the founders of modern physics and mechanics in the seventeenth century, such as Galileo and Kepler, proclaimed it as their own guiding principle of research. The two scientists just named both associate it with Plato.<sup>2</sup> And one of their quarrels with Aristotle is that he did not realize that the mathematically expressible aspect of phenomena was the fundamental aspect for science. Within the last few months, again, there have appeared two books by distinguished English biologists, the one by Professor Julian Huxley, and the other by Mr. J. B. S. Haldane. And in both "the permeation of biology by mathematics," to use a phrase of the latter, is spoken of as the chief hope for the advancement of the science. This idea is thoroughly Platonic in spirit.

Let us not overstate the case. Plato was not an experimental scientist, and the Academy was not a

<sup>1</sup> [A more familiar expression of the same point of view would be found in the *Republic*, 602, d, *et seq.*]

<sup>2</sup> And, of course, with the Pythagoreans.

scientific laboratory. The amount of original scientific observation and experiment done there was probably small. The greater part, if not the whole, of Aristotle's biological researches were carried on elsewhere in later years. And he may well have owed his inspiration in this direction as much to his medical forebears as to Plato. Of course, in the development of mathematics Plato's direct influence is beyond doubt or question. It is not too much to say that the whole of the subsequent development of the science was based on work done in the Academy under his inspiration. Those who decry the influence of Plato on science have to assume tacitly that mathematics is not a science, and even that its development is of no importance for other sciences. But, apart from this, it has to be admitted that it is difficult to find any definite trace of developments in the experimental and observational sciences which can be ascribed directly to the influence of Plato.

But this is merely to say that it is as a philosopher that Plato would claim to be judged. And the question of interest for our present inquiry is how far the natural sciences provide material which aids us in judging the merits of a philosopher. There is, of course, a certain type of scientist, of which I could name contemporary instances, which seems to hold that there is something offensive to science in the very existence of philosophers at all. With such we need hardly concern ourselves. What is of interest is to know whether any or all of the natural sciences provide any grounds for preferring one type of philosophical theory to another. And it is clear that, at the most, this can only be so to a very limited degree. The definite results of the sciences are clearly compatible with a large number of divergent philosophical views. Where we do, perhaps, find a certain difference is in the relation of a philosophical theory of knowledge to the general methods and assumptions on the basis of which the scientists have attained these results. It is clear

that a general theory of knowledge must at least account for the success of these methods. No doubt, here again, most theories that deserve serious consideration at all manage to give some kind of explanation of this. Yet it seems probable that the explanations of some theories will seem more natural and reasonable, more congenial and sympathetic to scientific aims and methods, than others.

Which these are it is difficult to say. The scientists themselves, to whom one would most naturally turn, are rarely safe guides in this matter, because they are not often prepared to take the trouble to grasp what the philosophical theories mean, still less to work out all their implications. It is dangerous, therefore, to dogmatize on this matter. But it seems to me, as I have already suggested, that any theory that bases knowledge exclusively on observation by the senses, even when it stops far short of the consistent empiricism of Hume, is a very slippery foundation for the development of science as we know it. Professor Macmurray has recently suggested that science is based on a fundamental scepticism about sense-perception. And it is undoubtedly true that at certain stages in its history it has demanded a radical criticism of the deliverance of the senses. I cannot see that sense-perception itself can provide the stimulus to this. Further, there is nothing in sense-perception itself to make us regard some sensible qualities as scientifically more important than others. Yet it can hardly be doubted that the progress of at least some sciences has depended upon a belief in the supreme importance of the measurable and mathematically expressible aspect of phenomena. Plato, as I have indicated above, cannot be denied the credit of having set scientific thought on that line. Indeed, there are good grounds for holding, as both Plato and Kant argued, that a consistent empiricism cannot explain the existence of pure mathematics at all.

On the other hand, a complete rationalism would be equally incompatible with the development of natural science. If it was held that we could deduce from purely logical principles exactly what we should find in the sensible world, it would be quite impossible to explain the enormous part played by observation and experiment in science. It appears that Hegel made this mistake, and on the basis of it made prophecies, all of which came wrong, about the direction that future scientific discoveries were going to take. But Plato, as I have attempted to show above, never fell into this error. It seems to me that his philosophy has the great merit, from the scientific point of view, of allowing at the same time for the special position of mathematics in the development of science, and for the impossibility of arriving at a knowledge of what is to be found in the sensible world by mathematical reasoning alone without observation and experiment. I believe, not without experimental confirmation, that the scientist, particularly the physicist,<sup>1</sup> who will take the trouble to master the main lines of Plato's theory, will find in it a philosophy more congenial to his own interests and habits of thought than that of almost any other great thinker.

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<sup>1</sup> Compare the able summary of the metaphysical views of the leading physicists given by Mr. G. N. M. Tyrrell, in *Philosophy*, Vol. vii, No. 28, I think that anyone who reads this with a knowledge of Plato in mind will be struck by the remarkable resemblance of most of these theories to Plato's. Of some of them we may feel also that they would gain greatly in coherence and consistency if the resemblance was made even closer. If we turn to more serious and systematic philosophies, based on the scientific approach, we can point to the remarkably close resemblance between the theories of Professor Whitehead and those of Plato.

## PLATO

IT is really impossible to say anything worth saying about Plato in general within the limits of a single article. Indeed, the more one studies Plato the more impossible does it become—if the concept of degrees of impossibility may be used in a philosophical journal. The reasons for this are manifold. The first lies in the supreme greatness of Plato as a thinker. Hardly anyone who has made a serious effort to study Plato has escaped receiving the impression of him as probably the greatest thinker of all ages. The difficulty is intensified by the particular form in which his greatness is conveyed to us. One may make a distinction, a relative distinction at least, between different philosophers in this respect. With some their message is conveyed to us with comparative rapidity, even perhaps on the first careful reading, and subsequent study adds little except in the way of detail. Among these it would perhaps not be unfair to place Hume. Others, on first reading, will appear obscure and difficult, sometimes even repellent. It is only after a much more careful study that their real greatness emerges, and they may go on increasing in stature at every subsequent reading. Such, I believe, to be the experience of the majority of readers with Kant. Plato is almost unique in that he makes his impression in both ways. Almost everyone is captivated by him at first reading, but it is only to those who take the trouble of reading him again and again with the intellectual effort that he himself would have demanded

that his full store of riches is revealed, if, indeed it is ever completely revealed to any one person.

To bring out the true width of range of his thought, we may suggest another distinction between the methods of different philosophers. There are some whose main contribution to thought consists in a few comparatively simple ideas. They take these as the basis of their system and apply them to all the particular problems with which they deal. Once one has grasped these fundamental ideas, it is relatively easy to see how the rest of their doctrine follows. With others, and these the greatest, we find a continually fresh approach from different aspects of experience and a continual readjustment of their theories to these. It is easy to see that this type of philosopher can be discussed from almost every angle of our experience, and that we cannot really do justice to them until we have done this. Plato is emphatically of this latter type. He was a systematic thinker in so far as he was always striving to make his beliefs coherent with each other. But he continually considers them anew in connexion with different particular problems, and to each of these particular problems he has a fresh contribution, from which we can always learn much, independently of his general theory. Thus, for instance, when he discusses the status of sense-perception in the *Theaetetus* or the psychology of pleasure in the *Philebus*, we can, it is true, see the connexion of his results with his other theories. But we can learn a great deal from what he has to say on these particular problems, whether we accept his other theories or not. It follows from this that any attempt to summarize Plato within a short compass would inevitably do him a serious injustice.

We are not yet at the end of our difficulties. A further difficulty arises from the character of his writings. As everyone knows, he has left us no systematic treatise in which his doctrines are set out

in the manner to which we are accustomed with most philosophers. Instead we have a series of dialogues, or dramatic conversations, dealing with a variety of particular subjects, in most of which Socrates is the principal speaker, and in none of which Plato himself appears at all. The significance of this fact has been very variously estimated. We need not linger here over the well-known Socratic controversy. It is still maintained by a minority of scholars that in most of the dialogues the views put forward are those of Socrates, and not necessarily those of Plato at all. The majority of scholars have not found this convincing. But in any case, pragmatically speaking, Plato and the Platonic dialogues are identical. The only Platonic philosophy to which we have access is the philosophy of the dialogues, and it is that philosophy which has been an influence and an inspiration for subsequent generations of thinkers.

But even allowing for this, to extract a philosophy from the Platonic dialogues is not always so easy. When we examine them we find that they take the form of a series of occasional essays, each in a special setting of its own, and each dealing with its own particular problem. The general points of view from which these problems are approached are very often implied rather than stated, and when stated, very rarely argued at length. I have elsewhere<sup>1</sup> compared the task of extracting a philosophy from the dialogues with the task of tracing the course of a submarine mountain chain by the peaks which appear here and there above the surface. And I still think that this metaphor is accurate, so far as any metaphor can be.

The result of all this is that there must necessarily remain a good deal of room for difference of opinion in the interpretation of Plato. Still more, of course, is there room for selection of the particular aspects of his many-sided thought which appeal most to each

<sup>1</sup> See *Plato and His Contemporaries*, p. 58.

reader. But even the differences and the difficulties of interpretation are themselves instructive and can afford a stimulus to our own thought. It is a tribute to the impression that Plato makes that so many different schools of thought have sought to find something in his writings which would support their own doctrines. They have often succeeded, though in some cases, it must be confessed, not without a good deal of manipulation of the evidence. But just as most doctrines of importance have had some truth on which they base themselves, so those who claim the support of Plato have generally found some element in the richness of his thought which has stimulated them in the direction in which they have gone. Yet it would not be paradoxical to say that Plato has often exercised his greatest influence on those who have misunderstood him. Certainly the schools which succeeded him and which bore his name represented only fragmentary parts of his real teaching. If we feel that we appreciate his thought more to-day than ever before, it is because we have learnt from the mistakes of our predecessors.

The conclusion is that, in an article such as this, it is only possible to indicate some of the chief lessons that the writer personally carries away from the study of Plato, with a warning that this is only a selection from a much larger whole, and that another individual might very likely make an entirely different selection.

(1) Perhaps the first impression that we take away with us from the reading of Plato is of his faith in reason. This statement is open to possible misunderstanding, and it would be as well to say a word of what it does not mean before going on to consider what it does. It does not mean that Plato believed it was possible to find out all about everything by sitting in his study and thinking out a theory, without any reference to practical experience or to the observation of observable facts. This point of view has often been ascribed to philosophers, probably untruly in most cases, and

certainly without a shadow of foundation in the case of Plato. He was perfectly well aware of the importance of experience and observation in their proper place. But he insisted that it was only by hard and systematic thinking that we could learn how to use them rightly. I have argued this point at greater length elsewhere,<sup>1</sup> and I need not repeat the argument here. Nor does it mean that Plato had any exaggerated belief in the reasonableness of human beings. This belief, too, has often been supposed, with very little foundation, to be characteristic of philosophers, but it is certainly the last charge that one could make against Plato. It is clear that he thought that there would never be more than a small minority of human beings who were capable of reaching complete rationality, and only for them would it be possible after a long and strenuous course of training.

It does mean that he thought that hard thinking was the only way to arrive at truth, and that to arrive at truth was the most important thing for any human being. There was for him no alternative method, no short cut, to this goal. He was not, as has sometimes been supposed, a religious mystic, if by mystic we imply one who claimed to arrive at the highest knowledge by some special and direct kind of experience, different in kind from the experience of ordinary thinking. Still less would he ever have thought that any kind of truth could be revealed by the aesthetic experience, the "fine frenzy," of the poet. Many literary men who have not been over-fond of hard thinking themselves have tried to claim the support of Plato for some such point of view as this. Their knowledge of Plato rarely seems to extend beyond a few brief selections of special literary interest, culled from two or three dialogues. In Plato's own writings there is no vestige of support for this view. If we are to believe that he meant what he said, he would have repudiated it with scorn and indignation.

<sup>1</sup> See the preceding paper.

His belief in reason is one of the foundations of his general view of the nature of reality. He took over from Parmenides the fundamental principle that what is fully real must be intelligible and what is fully intelligible must be real, and he applied this unflinchingly throughout. This is a principle which has often made its appearance in the subsequent history of philosophy. It appears, for instance, in Descartes, in his statement that the clearness and distinctness of ideas was the test of their truth. How Plato developed it we shall see more in detail later. But we may observe here that he was saved from the danger of a too rigid application of this principle by his recognition of a realm of half-reality "rolling about between being and not-being," in his lively phrase. This is the fleeting and obscure world of material physical objects, which will always contain an element inaccessible to pure reason. But even this world we can only understand and deal with in so far as it approximates to the world of scientific and rational thought.

He applies this general point of view especially to the guidance of our own conduct, both in our private lives and in our social and political activities. He was born in an age in which critical examination of accepted standards of conduct was widespread. And the first results of this, as was natural, had been mainly destructive, so that many things which had before been taken for granted without criticism were now being doubted, and there seemed nothing certain left. There were many men in Plato's youth who were saying, as timid minds have said in all ages, that all this criticism was dangerous and unsettling, and that men ought to go back to the unthinking acceptance of the old standards. It was probably from his master, Socrates, more than from anyone else, that Plato learnt the lesson that the only way to meet the dangers of critical thought was by further and deeper thought. There was nothing to be gained by an attempt to

stifle the reasoning powers and to refuse to face the new ideas. His whole treatment of moral and political questions is based on a plea for the application of hard and systematic thinking to the problems of conduct and on faith in the possibilities of this. The advocates of "national planning" in our own day might well return to Plato for their inspiration. But he would have extended his planning very much beyond anything that is proposed by them.

(2) There is another characteristic of Plato which is to be found in the thought of nearly everyone who has attained supreme eminence as a thinker. That is the combination of a keen interest in the results of the scientific thought of the time with an equally keen interest in the problems of conduct, and a conviction that our interpretations of both these aspects of human experience must somehow be connected with each other. The special form in which this was developed by Plato was in his famous 'Theory of Ideas, or, as it is sometimes and more correctly called, his 'Theory of Forms.

As far as one can judge, he came to this theory by working from two directions simultaneously. On the one hand, he realized that all our moral thinking implies the notion of an ideal of character or conduct to which our individual actions and our individual lives might approach nearer and nearer, but which it was impossible that we could ever completely realize. At the same time, we could not think of this ideal as merely something which we made up for ourselves, for the whole of our moral judgements imply that we are not free to make up our ideals of conduct according to our individual caprice, but that there is a right and a wrong in them; that is to say, they are something there to be discovered. In other words, they have reality, and for Plato the most complete reality possible.

Plato's investigation of the science of his time led him in the same direction. The most fully developed

science in ancient Greece was, of course, mathematics, and it was to this that Plato turned for the type of true scientific knowledge. He found that in mathematical thinking also we are dealing with entities which are not completely found in the material world of sense-perception, but which are none the less real objects of knowledge. The most obvious and familiar instance of this can be found in geometrical figures. We know that we cannot draw an absolutely straight line or an absolute circle. We can, of course, make our lines thinner and thinner or straighter and straighter, but we can never reach the line as geometrically defined. In the same way, in other branches of science, we deal with absolutely rigid bodies or absolutely pure fluids, though no such things are known in what we usually call the real world. Yet we certainly do not invent them. They are there to be found out about.

It is easy to see that we can come to think of the relation between the mathematical object and the approximation to it which we find in the material world as analogous to the relation between the moral ideal and our approximation to it in our own conduct. It was the discovery of this analogy which was the most characteristic feature in Plato's theory. These real ideals, whether found in the objects of mathematical science or in the realm of moral judgement, are called by Plato by a name which is most closely represented in English by our word "form." That is why we speak of the theory as the theory of forms.

This theory received many interesting and some extremely obscure developments at Plato's hands, and a number of points in its interpretation are still matters of dispute. But its main lines are pretty clear and were never departed from by Plato. On the one hand, we have the world of Forms, which Plato calls the world of Being (as we should say, the real world) or the intelligible world. This is the object of scientific knowledge; that is to say, our judgements about it

are definite and unequivocal and, if true at all, are absolutely true. It is also permanent, in the sense that it is unaffected by the passage of time; for instance, a fact in pure mathematics is a fact always and everywhere and in all circumstances. And it exists independently of our knowledge of it, as something there to be discovered. On the other hand, we have what he calls the world of Becoming, that is to say, the continually changing world of physical nature, which he also calls the object of opinion or belief. None of our judgements about this world are absolutely and unequivocally true: they have only a limited pragmatic validity. They are approximately true, or true in certain senses, or true enough for practical purposes. But there is only this degree of truth and reality about them because and in so far as their objects approximate to the world of Being. Plato expresses this relationship, which we have here described as "approximation," by various phrases, such as "sharing" or "participating," or in other contexts "imitation."

The possible applications of this theory are numerous. It gives a special turn to the problem of the relation between the universal and the particular, which has interested so many generations of philosophers. For Plato the universal is never something which is completely in the particulars, but always an ideal towards which the particulars approximate, or in which they participate to a greater or lesser degree, without ever quite reaching. We can see, if we try it, how fruitful this idea can be in our handling of the facts of the sensible world. When, for instance, we are looking for a definition of a class of objects, we shall often go astray if we try to look for a single quality which is fully present in all these objects and nowhere else. We shall find it much more helpful to look for a kind of ideal Form to which the particular objects approximate more or less nearly. Aristotle's

philosophy, which was based on the belief that the universal existed in the particulars, broke down when the belief in the absolute fixity of natural species and their sharp distinction from each other had to be abandoned. Plato's theory would have been perfectly capable of dealing with this fact.

Again we may see how this theory was able to set modern scientific investigation on certain lines which it has followed since. For Plato, we can only deal with the physical world at all in so far as we can discover in it approximations to the nature of the intelligible world. And the special form which he gave to the notion was the demand for the expression of the results of our investigations in mathematical terms and the consequent insistence on the necessity of measurement as precise as possible. This is certainly an idea which has played a great part in the progress of science. We must not, of course, fall into the error of talking as if Plato had in any way anticipated modern developments of scientific and mathematical theory, but we may claim that his theory, or something very like it, could have come to terms with these later developments to a degree which would have been impossible for any other early philosophy. It is noteworthy how a thinker like Professor Whitehead, when he attempts to base a philosophical system on the results of modern physics and mathematics, produces, as he fully recognizes, something which is much closer to the system of Plato than to that of any other philosopher.

One of the most interesting special applications of this general theory is to our thought about human conduct, particularly political and social activity. We get the most complete expression of this in the *Republic*. There Plato insists that the first duty of a real statesman is to have a clear and definite conception of the ideal state at which he is aiming. Only so can we have any standard by which we can judge of actual

or proposed measures and by which we can guide our practical efforts. But he is perfectly clear that this ideal state is not something which can be applied ready-made to actual conditions. Indeed, it is the essence of his doctrine that the ideal state is never absolutely and completely attained, any more than, to use his own comparison, a picture can be entirely identical with the original. Just as an artist who wishes to produce as good a likeness as possible works with his eye always on his original, so the statesman must always keep his eye on the ideal in order to attain as nearly to it as the circumstances and material in which he works allow.

(3) The third point on which something must be said is on the religious beliefs and attitude of Plato. And here perhaps more than anywhere it is necessary to beware of the temptation of trying to force Plato's thought into modern moulds.

Plato undoubtedly was a man of profound religious faith, but we must not necessarily assume that this faith took the forms with which we are familiar in Christianity. He believed that the existence of God could be rationally proved, and there are plenty of indications in the dialogues of the lines on which he thought this proof must proceed. The proof is based on the general nature of the material physical world. We have seen that he regarded this physical world as only an imperfect approximation to the real world of the Forms. But a further point of great importance is that even the relation to the real world that it has at any one moment is never permanent. In other words, the material universe is continually changing, both in its qualities and in its spatial relations. Now this fundamental fact of change and motion cannot be explained by relation to the Forms. The Forms are the principles of permanence and stability. Nor is there anything in the nature of matter itself which can set it in motion, or account for the fact that a

particular material object at a particular time participated in a particular Form. In our own experience we find that it is only animate bodies which have the power of moving themselves, and we therefore come to the conclusion that soul must be working throughout the physical universe to account for the fact of change and motion. Further, this motion and change (especially when seen on a large scale, as in the motions of the heavenly bodies) are found to be orderly, regular, and subject to law. And this is a proof that it is not merely soul, but rational soul, or mind, which is working throughout it. And this rational soul or mind which works throughout the physical universe is what Plato calls God.

Now the activity typical of a rational soul or mind is activity with a purpose directed to some end. We must therefore consider the activity of the soul which is working throughout the universe as animated by a purpose. If we ask what that purpose is, the only reply possible is that it is to bring everything to the utmost perfection of which it is capable. We must add also that, in accordance with the most probable interpretation of Plato's statements, the standard of goodness or perfection is to be found in the eternal Forms. These exist in their own right and are not themselves in any sense created by mind, even the Universal mind. They are rather the objects of mind's knowledge and provide an independently existing standard which mind discovers and towards which it directs its endeavours. The idea that the Forms themselves are the "thoughts of God" is a product of later speculation, and according to the best modern scholarship is not Platonic.

Be that as it may, it is clear that for Plato all the processes of the physical universe are in some sense an expression of God's purpose, that is to say, they are controlled and directed by a mind or spiritual principle working through them. The lesson for us

is that we have for our own sakes to co-operate with, or conform ourselves to, the working of this purpose. For Plato, as I should interpret him, there are two fundamental elements in the religious attitude proper to man. There is firstly the sense of our own insignificance and of the unimportance of our own private and personal desires as compared with the purpose of the whole; and secondly there is the sense that by the conduct of our own lives we are taking part in a great enterprise in which the soul throughout the whole universe is engaged.

We get the impression in certain passages that Plato believed that this attitude was to a certain degree fostered and expressed by various religious ceremonies. It is clear, however, that he did not think the particular form which these observances took mattered very greatly. Indeed, as far as we can judge from his writings, the whole matter of forms and ceremonies took a very secondary place in his mind. The primary and fundamental expression of this religious attitude was for him to be found in right conduct, the pursuit of virtue and the avoidance of vice in our daily lives. And this found its highest form in the activity of the true statesman. The highest good of which man is capable is to co-operate in the realization of the ideal community. This is, for Plato, the supreme expression of religion, and he nowhere assigns to religion any great importance apart from its expression in conduct. We may say that in general for him religion is not a form of activity distinct from morality, but a spirit in which morality is pursued.

It must be admitted that this interpretation of Plato's religious views would not meet with universal acceptance. There are certainly individual dialogues in which he appears to be taking a rather more other-worldly view. Yet, be it noted, when he does speak, in terms which suggest the language of religious mysticism, of a possible experience which has an

independent value beyond that of practical morality, such language is used not of a specifically religious experience, but of philosophical and scientific understanding of the Forms. There is little or nothing in his writings about the personal relation of man to God which is such an important element in Christian religious experience. Such, at any rate, is the impression left if we read his writings as a whole, without letting our judgement be too much influenced by modern preconceptions.

These, then, are some of the impressions which are left most strongly on the mind of one reader at least by a study of Plato's dialogues. But, of course, they are only a small selection from a much larger whole. And no brief summary can do justice to the wealth of stimulating suggestions on almost every philosophical problem that anyone can derive from a reading of the dialogues. We may conclude with yet a further suggestion about the necessary incompleteness of our understanding of Plato.

It has been suggested above that Plato for us necessarily means, before all else, the author of the Platonic dialogues. Though we are well enough informed about the main events in Plato's life, and have a few precious indications of his personality from his letters, yet it remains true that as compared, for instance, with our knowledge of any modern philosopher, we know very little indeed about Plato apart from his writings. We know enough, however, to realize that for Plato himself and for his own contemporaries the writings would have seemed a comparatively minor part of his services to the world. He tells us more than once in his letters that the most important part of any man's teaching is what cannot be expressed in any single treatise or collection of treatises.

If Plato himself had been asked what part of his activities he regarded most seriously, he would, there is very little doubt, have named the establishment of

the Academy, the school or college which he founded when he was about forty and presided over for the remaining forty years of his life. From the longest and most important of his letters we learn that his early interests and ambitions were primarily political, and though as time went on he found that there was no place for a man such as he was in the practical politics of his time, yet he always maintained the belief that some contribution to the welfare of society was the highest duty of any man. It is clear that his primary purpose in founding the Academy was to provide a training which might eventually produce a number of men of the type that he felt was really needed for the government of the state. As far as one can judge, there was no previous institution of exactly this type, and Plato may fairly claim to be the originator of the whole idea of the organized educational foundation.

How much actual practical effect Plato's work had on the political life of his time is very difficult to estimate. But one may say with confidence that the popular idea of him as a mere theorist, whose ideas had no actual or possible effect on practical politics, is founded on nothing but ignorance. We have excellent evidence that in many states in Greece Plato's pupils were recognized as expert advisers in questions of legislation. Plato's own intervention in the political affairs of Syracuse, the story of which has been told too often to need repetition here, was doubtless not very successful. But the suggestion which is often made, that this was only one more example of the inability of the theoretical philosopher to apply his ideas with any effect in practice, is quite baseless. Plato himself, as is evident from his letters, never expected that very much good could come of it. The fact was that the practical men had got the situation in Syracuse into such a hopeless position that there was really no way out, and Plato's failure was no more

conspicuous than that of anyone else who intervened in the affairs of that unfortunate city. But there is every evidence that in the object which he really did set before himself, namely that of educating the kind of man who might, when the opportunity arose, do really valuable service, Plato attained a considerable degree of success.<sup>1</sup>

At any rate, this may serve as a reminder that so far as our knowledge is restricted to Plato's writings, we only know half of Plato. It is interesting to wonder whether his stature would be increased or diminished in our eyes if his personality had been presented to us as vividly as, for instance, he himself has presented the personality of Socrates. Doubtless we might find in him, as in every human being, certain small weaknesses which would not show themselves in his writings. In one of his letters, for instance, there are traces of a not unamiable fussiness about small details. But this, as we can see from many modern examples, is quite compatible with the greatest intellectual attainments and moral elevation, though some scholars have been so shocked by the suggestion that a great philosopher could have any human weakness at all, that they have declared the letter must be a forgery. As far, however, as we can judge, the feeling he aroused in those with whom he came most closely into contact was one of almost religious veneration. At any rate, there is nothing in anything we know about him which need in any way detract from the profound impression that his writings make on all those who study them seriously. Indeed, they gain in their effect when we realize that they were written by a human being and not by a mere personification of philosophical and literary virtues.

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<sup>1</sup> I have discussed this more fully in *Plato and His Contemporaries*, chapters ii and iii.







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